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THE

PHYSICAL AND MORAL CONDITION

OF THE

CHILDREN AND YOUNG PERSONS

EMPLOYED IN

35 MINES AND MANUFACTURES.

Illustrated by Extracts

FROM
Great Britain

THE REPORTS OF THE COMMISSIONERS FOR INQUIRING INTO
EMPLOYMENT OF CHILDREN AND YOUNG PERSONS
IN MINES AND COLLIERIES,

AND IN

THE TRADES AND MANUFACTURES IN WHICH NUMBERS OF
WORK TOGETHER, NOT BEING INCLUDED UNDER THE
TERMS OF THE FACTORIES REGULATION ACT.

LONDON:

PUBLISHED FOR HER MAJESTY'S STATIONERY OFFICE,
BY JOHN W. PARKER, WEST STRAND

1843.

COMMISSION

(Under the Great Seal)

FOR INQUIRING INTO THE EMPLOYMENT AND CONDITION OF CHILDREN IN MINES AND MANUFACTURES.

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith: To Our trusty and well-beloved Thomas Tooke, Esquire, Thomas Southwood Smith, Esquire, Doctor in Medicine, together with Leonard Horner and Robert John Saunders, Esquires, Two of Our Inspectors of Factories, Greeting—WHEREAS, an humble Address was presented unto Us by the Knights Citizens, and Burgesses, and Commissioners of Shires and Burghs in Parliament assembled, humbly beseeching Us that We would be graciously pleased to direct an Inquiry to be made into the Employment of the Children of the Poorer Classes in Mines and Collieries, and the various branches of Trade and Manufacture in which numbers of Childrer work together, not being included in the provisions of the Acts for regulating the Employment of Children and Young Persons in Mills and Factories, and to collect information as to the ages at which they are employed, the number of hours they are engaged in work, the time allowed each day for meals, and as to the actual state, condition, and treatment of such Children, and as to the effects of such Employment, both with regard to their morals and their bodily health; Now Know YE, That We, reposing great trust and confidence in your ability and discretion, have nominated, constituted, and appointed, and do by these presents nominate, constitute, and appoint you, the said Thomas Tooke, Thomas Southwood Smith, together with Leonard Horner and Robert John Saunders, to be Our Commissioners for the purposes aforesaid; And We do hereby enjoin you to obey all directions touching the premises which shall from time to time, be given to you, or any two or more of you, by one of our principal Secretaries of State: And for the better discovery of the truth in the premises, We do, by these presents, give and grant to you, or any two or more of you, full power and authority to call before you, or any two or more of you, such persons as you shall judge necessary, by whom you may be the better informed of the truth in the premises, and to inquire of the premises and every part thereof, by all other lawful ways and means whatsoever; And We do hereby also give and grant unto you, or any two or more of you, full power and authority when the same shall appear to be requisite, to administer an oath or oaths to any person or persons whatsoever, to be examined before you

or any two or more of you, touching or concerning the premises ; And Our further will and pleasure is, that you Our said Commissioners, or any three of you, do, with as little delay as may be consistent with a due discharge of the duties hereby imposed upon you, Certify to Us, under your hands and seals, or under the hands and seals of any three of you, your several proceedings in the premises ; And We further will and command, and by these presents ordain, that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any two or more of you, shall and may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment : AND WE HEREBY COMMAND all and singular Our Justices of the Peace, Sheriffs, Mayors, Bailiffs, Constables, Officers, Ministers, and all other Our loving Subjects whatsoever, as well within Liberties as without, that they be assistant to you and each of you in the execution of these presents : And for your assistance in the due execution of this Commission, We have made choice of Our trusty and well-beloved Joseph Fletcher, Esquire, to be Secretary to this Our Commission, whose services we require you to use from time to time, as occasion may require. In witness whereof, We have caused these our Letters to be made Patent. Witness Ourself at Westminster, the Twentieth day of October, in the Fourth Year of Our Reign.

By Writ of Privy Seal.

EDMUNDS.

LETTER OF INSTRUCTIONS EXTENDING THE TERMS OF THE COMMISSION
TO "YOUNG PERSONS."

Whitehall, February 11th, 1841.

GENTLEMEN,

THE QUEEN having been pleased to comply with the prayer of an humble Address presented to Her Majesty, in pursuance of a Resolution of the House of Commons, dated 4th of February, 1841, "That Her Majesty will be graciously pleased to direct that the Commission appointed in answer to an Address of this House, on August 4th, 1840, for the investigation of certain branches of Infant Labour, do include within its inquiry the Labour also of Young Persons designated as such by the provisions of the Factory Act ;" I am directed by the Marquess of Normanby to desire that you will include within your inquiry the Labour of Young Persons designated as such by the provisions of the Factory Act accordingly.

I am, Gentlemen,

Your obedient Servant,

(Signed)

F. MAULE.

*The Commissioners for inquiring into the Condition
of Children employed in Mines, &c,*

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or any two or more of you, touching or concerning the premises ; And Our further will and pleasure is, that you Our said Commissioners, or any three of you, do, with as little delay as may be consistent with a due discharge of the duties hereby imposed upon you, Certify to Us, under your hands and seals, or under the hands and seals of any three of you, your several proceedings in the premises ; And We further will and command, and by these presents ordain, that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any two or more of you, shall and may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment : AND WE HEREBY COMMAND all and singular Our Justices of the Peace, Sheriffs, Mayors, Bailiffs, Constables, Officers, Ministers, and all other Our loving Subjects whatsoever, as well within Liberties as without, that they be assistant to you and each of you in the execution of these presents : And for your assistance in the due execution of this Commission, We have made choice of Our trusty and well-beloved Joseph Fletcher, Esquire, to be Secretary to this Our Commission, whose services we require you to use from time to time, as occasion may require. In witness whereof, We have caused these our Letters to be made Patent. Witness Ourself at Westminster, the Twentieth day of October, in the Fourth Year of Our Reign.

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(Signed)

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PHYSICAL AND MORAL CONDITION
OF THE
CHILDREN AND YOUNG PERSONS
EMPLOYED IN
MINES AND MANUFACTURES.

PHYSICAL CONDITION.

MINES.

I.—EMPLOYMENT OF CHILDREN AND YOUNG PERSONS IN MINES
AND METAL WORKS.

FROM the whole of the Evidence which has been collected,
state the Commissioners, we find,—

In regard to COAL MINES—

That instances occur in which Children are taken into these mines to work as early as four years of age, sometimes at five, and between five and six, not unfrequently between six and seven, and often from seven to eight, while from eight to nine is the ordinary age at which employment in these mines commences.

That a very large proportion of the persons employed in carrying on the work of these mines is under thirteen years of age; and a still larger proportion between thirteen and eighteen.

That in several districts female Children begin to work in these mines at the same early ages as the males.

That the great body of the Children and Young Persons employed in these mines are of the families of the adult workpeople engaged in the pits, or belong to the poorest

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population in the neighbourhood, and are hired and paid in some districts by the workpeople, but in others by the proprietors or contractors.

That there are in some districts also a small number of parish apprentices, who are bound to serve their masters until twenty-one years of age, in an employment in which there is nothing deserving the name of skill to be acquired, under circumstances of frequent ill-treatment, and under the oppressive condition that they shall receive only food and clothing, while their free companions may be obtaining a man's wages.

That in many instances much that skill and capital can effect to render the place of work unoppressive, healthy, and safe is done, often with complete success, as far as regards the healthfulness and comfort of the mines; but that to render them perfectly safe does not appear to be practicable by any means yet known; while in great numbers of instances their condition in regard both to ventilation and drainage is lamentably defective.

That the nature of the employment which is assigned to the youngest Children, generally that of "trapping," requires that they should be in the pit as soon as the work of the day commences, and, according to the present system, that they should not leave the pit before the work of the day is at an end.

That although this employment scarcely deserves the name of labour, yet, as the Children engaged in it are commonly excluded from light and are always without companions, it would, were it not for the passing and repassing of the coal carriages, amount to solitary confinement of the worst order.

That in those districts in which the seams of coal are so thick that horses go direct to the workings, or in which the side passages from the workings to the horseways are not of any great length, the lights in the main ways render the situation of these Children comparatively less cheerless, dull, and stupifying; but that in some districts they remain in solitude and darkness during the whole time they are in the pit, and, according to their

own account, many of them never see the light of day *Emple*
for weeks together during the greater part of the winter *Coal*
season, excepting on those days in the week when work is
not going on, and on the Sundays.

That at different ages, from six years old and upwards, the
hard work of pushing and dragging the carriages of
coal from the workings to the main ways, or to the foot
of the shaft, begins ; a labour which all classes of wit-
nesses concur in stating requires the unremitting exertion
of all the physical power which the young workers pos-
sess.

That, in the districts in which females are taken down
into the coal mines, both sexes are employed together
in precisely the same kind of labour, and work for the
same number of hours ; that the girls and boys, and the
young men and young women, and even married women
and women with child, commonly work almost naked,
and the men, in many mines, quite naked ; and that all
classes of witnesses bear testimony to the demoralizing
influence of the employment of females underground.

That, in the East of Scotland, a much larger proportion
of Children and Young Persons are employed in these
mines than in other districts, many of whom are girls ;
and that the chief part of their labour consists in carry-
ing the coals on their backs up steep ladders.

That when the workpeople are in full employment, the
regular hours of work for Children and Young Persons
are rarely less than eleven ; more often they are twelve ;
in some districts they are thirteen ; and in one district
they are generally fourteen and upwards.

That in the great majority of these mines night-work is a
part of the ordinary system of labour, more or less re-
gularly carried on according to the demand for coals,
and one which the whole body of evidence shows to act
most injuriously both on the physical and moral condi-
tion of the workpeople, and more especially on that of
the Children and Young Persons.

That the labour performed daily for this number of hours,
though it cannot strictly be said to be continuous, be-

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cause, from the nature of the employment, intervals of a few minutes necessarily occur during which the muscles are not in active exertion, is nevertheless generally uninterrupted by any regular time set apart for rest and refreshment; what food is taken in the pit being eaten as best it may while the labour continues.

That in well-regulated mines, in which in general the hours of work are the shortest, and in some few of which from half an hour to an hour is regularly set apart for meals, little or no fatigue is complained of after an ordinary day's work, when the Children are ten years old and upwards; but in other instances great complaint is made of the feeling of fatigue, and the workpeople are never without this feeling, often in an extremely painful degree.

That in many cases the Children and Young Persons have little cause of complaint in regard to the treatment they receive from the persons in authority in the mine, or from the colliers; but that in general the younger Children are roughly used by their older companions: while in many mines the conduct of the adult colliers to the Children and Young Persons who assist them is harsh and cruel; the persons in authority in these mines, who must be cognizant of this ill-usage, never interfering to prevent it, and some of them distinctly stating that they do not conceive that they have any right to do so.

That, with some exceptions, little interest is taken by the coal-owners in the Children and Young Persons employed in their works after the daily labour is over; at least little is done to afford them the means of enjoying innocent amusement and healthful recreation.

That in all the coal-fields accidents of a fearful nature are extremely frequent; and that the returns made to our own queries, as well as the registry tables, prove that, of the workpeople who perish by such accidents, the proportion of Children and Young Persons sometimes equals and rarely falls much below that of adults.

That one of the most frequent causes of accidents in these mines is the want of superintendence by overlookers or

otherwise, to see to the security of the machinery for letting down and bringing up the workpeople, the restriction of the number of persons that ascend and descend at a time, the state of the mine as to the quantity of noxious gas in it, the efficiency of the ventilation, the exactness with which the air-door keepers perform their duty, the places into which it is safe or unsafe to go with a naked lighted candle, and the security of the proppings to uphold the roof, &c.

That another frequent cause of fatal accidents in coal mines is the almost universal practice of intrusting the closing of the air-doors to very young Children.

That there are many mines in which the most ordinary precautions to guard against accidents are neglected, and in which no money appears to be expended with a view to secure the safety, much less the comfort, of the workpeople.

That there are moreover two practices peculiar to a few districts which deserve the highest reprobation, namely, —first, the practice not unknown in some of the smaller mines in Yorkshire, and common in Lancashire, of employing ropes that are unsafe for letting down and drawing up the workpeople; and second, the practice, occasionally met with in Yorkshire, and common in Derbyshire and Lancashire, of employing boys at the steam-engines for letting down and drawing up the workpeople (*First Report, Conclusions, p. 255—257*).

When we consider the extent of this branch of industry, the vast amount of capital embarked in it, and the intimate connexion in which it stands with almost all the other great branches of trade and manufacture, as a main source of our national wealth and greatness, it is satisfactory to have established, by indubitable evidence, the two following conclusions:—

That the coal mine, when properly ventilated and drained, and when both the main and the side passages are of tolerable height, is not only not unhealthy, but, the temperature being moderate and very uniform, it is, considered as a place of work, more salubrious and even

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agreeable than that in which many kinds of labour are carried on above ground.

That the labour in which Children and Young Persons are chiefly employed in coal mines, namely, in pushing the loaded carriages of coals from the workings to the mainways or to the foot of the shaft, so far from being in itself an unhealthy employment, is a description of exercise which, while it greatly develops the muscles of the arms, shoulders, chest, back, and legs, without confining any part of the body in an unnatural and constrained posture, might, but for the abuse of it, afford an equally healthful excitement to all the other organs; the physical injuries produced by it, as it is at present carried on, independently of those which are caused by imperfect ventilation and drainage, being chiefly attributable to the early age at which it commences, and to the length of time during which it is continued.

There is, however, one case of peculiar difficulty, viz. that in which all the subterranean roadways, and especially the side passages, are below a certain height: by the Evidence collected under this Commission, it is proved that there are coal mines at present in work in which these passages are so small, that even the youngest Children cannot move along them without crawling on their hands and feet, in which unnatural and constrained posture they drag the loaded carriages after them; and yet, as it is impossible, by any outlay compatible with a profitable return, to render such coal mines, happily not numerous nor of great extent, fit for human beings to work in, they never will be placed in such a condition, and consequently they never can be worked without inflicting great and irreparable injury on the health of the Children.

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In regard to IRONSTONE MINES, we find—

That on account of the greater weight of the material to be removed, the labour in these mines, which are worked on a system similar to that of the coal mines, is still more severe than that in the latter, and renders the employment of older and stronger Children a matter of absolute necessity; while the ironstone pits are in

general less perfectly ventilated and drained than the coal mines, and are, therefore, still more unhealthy, producing the same physical deterioration and the same diseases, but in a more intense degree.

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In regard to BLAST FURNACES, for reducing the ores of iron, we find—

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That the operations connected with these works involve the absolute necessity of night work; that Children and Young Persons invariably work at night with the adults; that the universal practice is for one set of workpeople to work one week during the day, and the same set to work the following week during the night; and that there is, moreover, in addition to the evil of alternate weeks of night work, a custom bearing with extreme hardship upon Children and Young Persons, namely, that of continuing the work without any interruption whatever during the Sunday, and thus rendering every alternate Sunday the day during which the labour of one set of workpeople is continued for twenty-four hours in succession; a custom which still prevails, notwithstanding that a considerable proportion of the proprietors have dispensed with the attendance of the workpeople during a certain number of hours on the Sunday, without disadvantage to their works.

In regard to UNDERGROUND LABOUR IN TIN, COPPER, LEAD, AND ZINC MINES, we find—

*Tin, Copper
Lead, and
Zinc Mines.*

That very few Children are employed in any kind of underground work in these mines before they are twelve years old, and that in many cases even the young men do not commence underground work until they are eighteen years of age and upwards.

That there is no instance in the whole kingdom of any girl or woman being employed in underground work in these mines.

That it is in the Cornish district alone that Children and Young Persons of any age are constantly employed under ground in considerable numbers.

Employment. With regard to the surface employments connected with DRESS-
Dressing Ores ING THE ORES OF TIN, COPPER, LEAD, AND ZINC, we find—
of Tin,
Copper, Lead,
and Zinc.

261 That these employments, though entered into at very early ages, and in the Cornish district by great numbers of girls as well as boys, are wholly free from the evils connected with underground work; that, with the exception of a very injurious exposure to the inclemency of the weather, which might be obviated by a small expenditure in providing shelter, and with the exception of two or three occupations, such as those of "bucking" and "jigging," for the manual labour of which the substitution of machinery is gradually taking place, there is nothing in this branch of mining industry injurious, oppressive, or incompatible with the maintenance even of robust health, which indeed is described as the general condition of the workpeople; the Children and Young Persons thus employed having commonly sufficient food, and warm and decent clothing, being subjected to no harsh or tyrannical treatment, and enjoying an almost complete immunity from any serious danger.

Smelting Ores With regard to the works for SMELTING ORES OF TIN, COPPER,
of Tin, LEAD, AND ZINC, we find—
Copper, Lead,
and Zinc.

That in smelting the ores of lead, near the places at which they are raised, no Children and very few Young Persons are engaged, while those employed in the tin works will require a separate notice in treating of manufactures; but that in the copper works of South Wales, in which the Cornish ores are smelted, and in those of North Wales, which reduce the ores raised in their vicinity, a number of Children and Young Persons are employed, from nine years of age and upwards (in South Wales girls as well as boys), of whom those engaged at the calcining furnaces regularly work with the men twenty-four hours consecutively, on alternate days, without excepting the Sunday; a term of work which is sometimes extended to thirty-six hours, and even to forty-eight hours, when, as in South Wales, the "long watch" includes the Sunday (*First Report*, Conclusions, pp. 260, 261).

II.—PHYSICAL CONDITION OF CHILDREN AND YOUNG PERSONS EMPLOYED IN COAL AND IRON MINES.

In order to derive from the evidence collected the instruction ^{Coal.} _{Al} which it is capable of affording relative to the physical condition of persons employed in coal mines, it will be desirable first of all to bring together the statements made in general terms by various classes of witnesses as to the food, clothing, health, and vigour of the collier population in the several districts, and then to consider more particularly the immediate effects of the excessive labour frequently required from the very young in some districts, and the peculiarities in their actual physical conformation produced by such labour, as indicated by their stature, their muscular development, their diseases, and their comparative longevity.

Physical Condition generally, as to Food, Clothing, Health, and Vigour.

South Staffordshire.—All classes of witnesses concur in stating ^{S.} _{Staffr} that the collier population of South Staffordshire is in general well fed, well clothed, and in excellent physical condition.

Mr. Samuel Day Fereday, surgeon, of Dudley, says: "There are benefit societies which contract for so much a-head with medical men, and the societies which consist of colliers have a much less ratio of sickness than societies consisting of men of other employments" (Mitchell, Evidence, No. 2: App. Pt. I., p. 61, l. 34), which this witness accounts for from the superior health of the colliers, from the dryness and agreeable temperature of the mines, and from the colliers being well fed, which keeps up their strength. He adds—"In case of accidents it is remarkable how rapidly the colliers recover. In cases which would be fatal in London, and the patients would sink under them, the colliers think nothing of them, and quickly get well. I have known the children of colliers who had a fracture of the thigh able to be down and go about in a month" (Ibid. No. 2: p. 61, l. 54).—Mr. Richard Spooner Cooper: "They are more healthy than men who follow other occupations. From my experience for five years at the Birmingham hospital, I know that the colliers are much more healthy than the workmen of Birmingham. Compound fractures of limb will turn out very well here, which is not frequently the case in Birmingham. A broken leg will heal much sooner, and there is much less risk of permanent injury from any

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Staffordshire. severe accident. When any operation is performed, the patient is much sooner got well" (Ibid. No. 3: p. 62, l. 8).—Mr. Thomas Shorthouse, clerk of the Dudley Union: "The colliers live jovially down in the pits; they keep their families well; not so many applications for relief from colliers as from some other trades; in general the families of colliers are comfortable; the women are strong and hearty; they have always plenty of firing, and you may see them carrying home a cwt. of coals" (Ibid. No. 1: p. 61, l. 15).

Evidence to the same effect is given by all classes of witnesses. (See Nos. 5, 8, 13, 16, 24, 41.)

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Staffordshire. *North Staffordshire.*—In the Cheadle district the Children and Young Persons are stated to be robust and healthy, without personal injury or deformity, and no case was found of murmuring or discontent (Scriven, Report, s. 14: App. Pt. II., p. 129).

Shropshire. *Shropshire.*—The medical men assert that the miners of this district, men and boys, are healthy; but there is an extraordinary mortality during infancy and childhood owing to the quantity of gin and opium which is given by the mothers to their children: those who survive are strong, because the weak soon perish (Mitchell, Report, s. 313: App. Pt. I., p. 39; Evidence, Nos. 38, 39, 48).

Warwickshire. *Warwickshire.*—In this district, from the thickness of the seam of coal, the dryness of the mines, and the excellent ventilation, the colliers are under circumstances highly favourable to health; and are a tall, athletic, powerful race of men, continuing their labour to an advanced age, having, as one of the medical witnesses expresses it, lived all their lives "like fighting cocks." Mr. John Craddock, Chairman of the Guardians of the Poor of the Nuneaton District, states, that the applications for relief from colliers are much fewer than from any other class; less than from agricultural labourers or from weavers, and that they keep on working to any age up to sixty, and even to a higher age (Mitchell, Evidence, No. 67: App. Pt. I., p. 107, l. 18).

Leicestershire. *Leicestershire.*—In the Ashby-de-la-Zouch district the state of the coal mines is equally favourable to health and longevity with that of the coal mines of Warwickshire; the colliers are tall, strong, powerful men, but on account of the rocky hardness of the coal, and the great weight of the pieces in which it is got, the labour is extremely severe, and none but the strongest constitutions can bear it long.

Mr. Charles Allsopp Dalby, surgeon of the Union at Ashby-de-la-Zouch, states that their health is in general exceedingly good, better than that of agricultural labourers, but that the work of the pit is very laborious, and that many of the colliers are incapable of following their occupation at fifty and others at fifty-five; and Mr. John Davenport, clerk of the Union, says that they have few applications from colliers for relief on account of sickness, although the collier is sooner unfit for work than the agricultural labourer (Mitchell, Evidence, Nos. 75, 77, 81, 82, 83, 87).

Derbyshire.—Of the food, clothing, and physical condition of the collier population of this district the Sub-Commissioner reports :—

“ Their food, generally speaking, is full as ample and good as those who are labouring above ground; but having to get their meals, one at so early an hour in the morning, often without fire or light, the other in the cold bad air of the pit, after having been in a profuse perspiration, without, as they state, scarcely being able to wipe the mud from their hands—also being so long between their meals, must deprive them of all comfort, if it does not injure their powers of digestion.

“ Their clothing consists of a coarse flannel shirt or jacket, and trousers, mostly of the same material. The jacket is thrown off in most pits, and only used where they are allowed to sit down to their dinner, or on coming out of the pit. As to cleanliness during work, it is impossible; but at the same time I was much pleased at the particularly neat and clean appearance of the collier Children I met with at the various Sunday-schools.

“ Those cottages I visited belonging to the colliers varied very much in different parts of the district: at Ilkistone and its neighbourhood they were decidedly much more neat and comfortable than any of their neighbours, who were engaged either in lace-making, stocking-making, or agriculture; but at South Norman-ton and Kirkby they were the picture of dirt and wretchedness. I observed in all parts, if there was but little furniture, every collier's cottage had a blazing fire: this they get free of any expense, and certainly it is a set-off against some of their deprivations” (Fellows, Report, ss. 50—55: App. Pt. II., p. 256).

“ In external appearance I think the Children in the south part of the district are healthy, and (with the exception of those

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shire. who have worked at a very early age being bow-legged) not ill formed. I have observed that their complexion, although not altogether to be called sickly, is of a sallow hue: this, I suppose, follows as a matter of course from their being nearly deprived of daylight.

"Those Children who are employed at the pit mouth, or in farmers' service, are straighter on the legs and better looking than those working underground. I have noticed the Children who do not work, or have not from an early age worked in pits, are well and better formed than those, if even of the same family, who have worked at an earlier age than twelve years" (Ibid. s. 45—47, p. 255).

Dr. Blake "considers they are generally as healthy as the labourers above ground, which he attributes to their better diet" (Fellows, Evidence, No. 10: App. Pt. II., p. 266, l. 6).—William S. Smith, Esq., surgeon: "As a body he considers them more healthy than the lower class in the neighbourhood. The cause of this he attributes to their living better, and he always finds a collier Child will sooner get the better of an illness than a stocking-maker, as he has better stamina" (Ibid. No. 83: p. 286, l. 57).—See also Witnesses Nos. 23, 25, 26, 40, 69, 72, 73, 77, 80, 88, 102, 110, &c.

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West Riding of Yorkshire: Southern Part.—In this district the food and clothing of the collier population are in general good. "The Children, as well as the adults, have bread and milk, or porridge to their breakfast; huge lumps of bread, and often bits of cheese or bacon, or fat, to their luncheon in the pit; a hot meat meal when they come home at five or six; and often porridge, or bread and milk, or tea for supper. See the statement (No. 84) as to the colliers taking nothing but the best quality of articles at shops. Their clothing is generally extremely good. In external appearance the collier Children are decidedly more robust and healthy than any manufacturing Children; perhaps less so than farm Children; but on the whole they are, excepting where they work in badly-ventilated and ill-regulated collieries, certainly far from unhealthy in appearance. The contrast is most striking between the broad stalwart frame of the swarthy collier, as he stalks home, all grime and muscle, and the puny, pallid, starveling little weaver, with his dirty-white apron and feminine look. There cannot be a stronger proof that it is no-

muscular exertion which hurts a man" (Symons, Report, *Coal and Mines* s. 198, 209—213: App. Pt. I., p. 192—194).

Michael Thomas Sadler, Esq., surgeon, Barnsley, says: "The Children live well, and look strong" (Symons, Evidence, No. 139: App. Pt. I., p. 261, l. 41).—Edwin Ellis, Esq., surgeon, Silkstone: "Taking them as a whole, I am decidedly of opinion that the Children who work in pits are more healthy than any other class of Children I meet with, much more so than weavers, or even than farm-labourers. I know of no illness that is attendant on their employment. They live better as to food than other classes. They consume a great deal of animal food, milk, and beer or ale" (Ibid. No. 99: p. 248, l. 17).—Mr. Crooks, surgeon, Barnsley: "A more healthy set of Children we haven't about us than those who work in coal-pits. I know of no disease incidental to colliers" (Ibid. No. 166: p. 267, l. 16).—See also Witnesses Nos. 6, 19, 24, 46, 61, 69, 93, 102, 112, 153, 170, 192, 242, &c.

To this representation of the favourable physical condition of the collier population of this exceedingly diversified district there are, however, numerous exceptions: several witnesses state that some of the Children and Young Persons have never food enough, and their clothing is in many cases described as being wretched, so that it is but too evident that such laborious and exhausting work as has been described does not always bring with it even so much as the reward of sufficient food and raiment.

Joseph Haigh, underground steward, Tinsley Park Collieries: "Thinks the work itself would not hurt them, if they all lived regularly. Many have not proper meals at home. A boy that works ought to have meals every day alike, and regularly, like a horse; but they are often pinched at the end of the week" (Ibid. No. 9: p. 228, l. 40).—Mr. William Higgett, steward to the Tinsley Park Pits: "Their meals are insufficient with some of them, owing to their belonging to very poor families" (Ibid. No. 10: p. 229, l. 5).—Mr. Crooks, surgeon, Barnsley: "In my round to-day I rode by a lot of cottages, chiefly occupied by colliers, when I met with a farmer who resides amongst them: from inquiries I made respecting the condition and management of the Children, he said that the greatest part of them went to the pits, and many who had thoughtless parents were badly fed: he stated that he was afraid that some of them were sent to their work without breakfast, and took but little with them, and but coarse fare when they returned, though this depended upon their improvident parents: those who were fortunate enough in having good parents looked well, and went and returned from their work

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Part.* cheerfully and in good spirits: in one family there were two young men who were deformed; they had lost their mother when children, their father married again to a woman who treated them badly, and as there was a large family they were but ill fed, to which they attributed their deformities" (Ibid. No. 166: p. 267, l. 57).—Mathew Lindley, collier: "They have a little milk or a little coffee and a bit of bread in the morning before they go to the pit, and they will take nothing with them but a little bread and perhaps a little tea, but oftener dry bread than anything else. Their parents cannot often get them more. They do not have meat. The parents do not get wages enough to provide meat for the children. When they come out of the pit at night they may have a little meat or milk porridge, but a bit of dry bread and a sup of milk is the usual supper. The boys do look healthy, it is true, but it is because they are young. The work they get to do is not hard, as far as trapping is concerned, but hurrying is very slavish work, and I have known boys go to work all the twelve hours without more than a bit of dry bread to eat" (Ibid. No. 109: p. 250, l. 53).—John Ibbetson, thirteen and a half years old: "I stop at home now, I've no clothes to go in; I stop in because I've no clothes to go and lake with other little lads" (Ibid. No. 264: p. 291, l. 61).—Thomas Caveney, thirteen years old: "I go to Sunday-school sometimes, but I have no clothes to go in" (Ibid. No. 238: p. 286, l. 3).

The Sub-Commissioner expressly excepts from the account given of the favourable physical condition of the Children in this district those who draw with the girdle and chain; and the medical evidence is decisive as to the great and permanent injury done to the health of the Children who thus work in the thin pits (Symons, Report, s. 199: App. Pt. I., p. 193).

Dr. Favell, M.D., of Sheffield, "Is of opinion that where children (especially female children) are harnessed to corves, and where the seam is so low that they are forced to go on their hands and feet, and where the ventilation is also not good, the occupation must necessarily be prejudicial to their health" (Symons, Evidence, No. 47: App. Pt. I., p. 235, l. 64).—Henry Hemingway, Esq., surgeon, Dewsbury: "I have examined the children working in a thin and in a thicker bed of coal, and found projection of the sternum; and sinking in of the spinal column is common in the thin bed, and only in a few instances in the thicker bed of coal" (Ibid. No. 221: p. 282, l. 42).

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Bradford and Leeds.—Of the food, clothing, and general physical condition of the Children and Young Persons in this district, the Sub-Commissioner reports as follows:—"As to food,

the number of meals, and the quantity and quality of food at each meal, are perfectly adequate to maintain the health and strength of Children in constant labour. On this head certainly no complaint can be made. Whether the time allowed for eating in the middle of the day is ample, is a point to which I have already adverted under the head of Hours of Work, and on which I do not feel able to speak without hesitation; but I could discover no bad effects resulting from the present practice.

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“As to clothing, there is considerable difference, according to the habits of the mother of the family, and also, perhaps, according to neighbourhoods, the Children seeming to be on the whole better clothed in those neighbourhoods where there is a larger proportion of the middle and upper classes. The connexion between these two circumstances is, perhaps, to be traced in part to the greater activity in Sunday-school education, which the presence of a large proportion of the middle classes produces, respectability of dress being generally enforced upon the Children who attend Sunday-schools. The larger proportion of Children have two suits of clothes, and are respectably dressed on Sundays. With regard to clothing in the week-days, there is not the tidiness which could be wished; but I could not discover that the health of the Children at all suffers from insufficiency of clothing.

“As to cleanliness, the custom seems universally prevalent, and perfectly established, of a thorough washing upon arrival at home at night, at least of those parts of the body which have been exposed during the day's labour. Cleanliness of person and decency of attire are also enforced upon those who attend Sunday-schools, and attendance there during some period of Childhood is almost universal. Beyond this no encouragement is given to neatness and cleanliness; and the houses of the miners, and the places adjoining them, are, generally speaking, lamentably deficient in these respects. In defence of the miners, however, it may be stated, that much of this is attributable to the generally bad and defective construction of the cottages. It would be a material step towards improvement were the owners of mining property to direct their attention to the construction of a better class of dwellings; nor does there seem to be amongst the operatives, or at least amongst a portion of them, any indisposition to avail themselves of the means of living in better houses, were such means within their reach.

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“ The physical condition of the Children who are the subject of this inquiry is, at the least, equal to the average of other Children in the same neighbourhood. They possess a greater share of spirits and activity, the result, I apprehend, of their employment being active, and of their obtaining, independently of it, a fair share of air and exercise. They are nearly, and in every respect but stature, quite upon a par with Children engaged in agricultural labour, and, judging from appearances, decidedly superior to the neighbouring factory population” (Wood, Report, s. 34—40: App. Pt. II., p. H 6). See Witnesses Nos. 3, 4, 5, 9, 16, 20, 22, 23, 40, 50, 52, 53, 54, 56, 67, 81, &c.

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Hatifax.—In this district “ the breakfast generally consists of a mess of porridge (oatmeal and hot milk or water); the dinner is almost invariably a flat, thin, coarse, oaten cake peculiar to the North, or a wheat cake weighing about six ounces, without any other accompaniment save a morsel of salt butter or lard: this they often partially or wholly dispose of before nine, ten, or eleven o'clock, when they feel most hungry, which suffices them until their return home, when they get their suppers, and are said to be satisfied, which I believe to be true, as in very few instances have I heard of any complaints” (Scriven, Report, s. 63: App. Pt. II., p. 67).

Notwithstanding all the injurious influences which are constantly acting on the Children in this district, more especially in the wet, dirty, and ill-ventilated mines, of which, as has been shown, there are so many in this neighbourhood, the Sub-Commissioner reports “ that the physical condition of the Children is in general good. It has been a source of satisfaction to find that their general health is remarkably good, as out of the many hundreds that have come under my observation I have never met with a solitary case of functional or organic disease as the result of their employment—the opposite condition obtaining in a marked degree, as evidenced by their florid countenances and cheerful dispositions. It has been the practice, and one no less singular than true, for parents unconnected with collieries, whose offspring may have been the victims of constitutional disease, to send them into the pits for ‘ change of air,’ a change, too, that has contributed to the restoration of many, more especially of those suffering from bronchial and pulmonary complaints; and no wonder, since they have been removed from the cold and blighting winds

of the moors to a more equal, humid, and genial atmosphere" *Coal and I. Mines.* (Ibid. s. 84, 85: p. 72.) See Witnesses Nos. 2, 3, 6, 11, 12, 13, 14, 15, 17, 18, 19, 22, 23, 25, 29, 53, 86, &c.

Lancashire and Cheshire.—Of the physical condition of the collier population in this district the Sub-Commissioner reports as follows:—"As far as I had the opportunity of judging, it appeared to me that the proportion of still-born infants was rather large, and certainly the care bestowed on the Children and the state of the dwellings could not be considered favourable to their healthy growth. The adults are thin and gaunt. One or two colliers, somewhat corpulent, were pointed out to me as remarkable for being corpulent. They have a stooping, shambling gait when walking, no doubt acquired from their occupations in the low galleries of the mines. Their complexion, when washed, is pallid, approaching to a dirty yellow; the eye is languid and sometimes inflamed, and the expression of the countenance is listless. *Lancashi and Cheshire*

"In the women, who drink less and are generally more temperate in their habits than the men, the difference was not striking between the colliers' wives who worked in the mines and those who did not; the chief distinction being that those who worked in the mines had a shambling gait and stoop. I saw several women with clean faces who usually worked in the mines, and their complexions presented a healthy florid appearance. Margaret Winstanley and Dinah Bradbury, whose evidence is given, were instances of this. Those women who worked in the mines appeared to be strong, and as well developed as any other women of the labouring classes in the district.

"Some of the Children are decently clothed, and, according to their own statements, always have sufficient food; on the other hand, many are in rags and in a disgusting state of dirt, and without enough to eat. The usual food of drawers and colliers in the pits is stated to be cheese and bread, or bread and butter, and sometimes raisin pasties: they take what they have to eat in their hands, and take a bite now and then; sometimes they carry it till it is as black as a coal" (Kennedy, Report, ss. 297, 298, 302: App. Pt. II., p. 188; Evidence, Nos. 28, 32, 49, 50, 57, 59).

Peter Gaskell: "How often do the drawers wash their bodies?"

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—None of the drawers ever wash their bodies; I never wash my body; I let my shirt rub the dirt off, my shirt will show that; I wash my neck and ears and face, of course. Do you think it is usual for the young women to do the same as you do?—I don't think it is usual for the lasses to wash their bodies; my sisters never wash themselves, and seeing is believing; they wash their faces and necks and ears. When a collier is in full dress he has white stockings and low shoes, and very tall shirt-neck, very stiffly starched, and ruffles?—That is very true, Sir, but they never wash their bodies underneath; I know that, and their legs and bodies are as black as your hat" (Kennedy, Evidence, No. 29: App. Pt. II. p. 217, l. 45). ——— Halliwell, parish overseer: "Have you ever noticed the condition of the children as regards the clothing?—Those children are almost invariably badly clothed. As regards cleanliness, can you state as to the condition of the colliers in this district?—Yes, I can safely state that they are generally filthy; there are some cases where the parents take pains with the children, but they are very few. The children, and men and women, wash their faces, but that is all. In visiting the houses of the colliers in what condition have you generally found them?—The houses are usually filthy; there is no attention to whitewashing or ventilation; paper and rags are often pasted and stuffed into the broken windows; the beds and bedding are generally poor; they are in the habit of pawning their clothes, and in some instances I have known them pawn the bedding, bed-clothes, and even the coats off their backs, when they have been on the spree" (Ibid. No. 99: p. 234, l. 37).—Mr. Harrison, parish overseer: "In visiting the houses of colliers in what condition have you generally found them?—Very rough, they make rough work in a house; they have very few goods; the beds are often dirty, they must be dirty with the dirt on their bodies. The windows are badly kept, not cleaned, and most of the houses are seldom whitewashed; but there are some exceptions, where colliers keep their houses very decent and clean, and their bedding too" (Ibid. No. 100: p. 235, l. 69).—Mr. Birchall, parish overseer: "Have you ever remarked the clothing of the colliers' children?—There are very few of the children who have any dress but that used by them in the mines; they scarcely ever have any but one suit. Do you think the colliers cleanly in their persons?—No, quite the reverse; they will wash their faces and ears, but I believe that neither the girls nor boys ever wash their bodies; you may see a ring round their necks after they have washed them" (Ibid. No. 101: p. 236, l. 66).

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Lancashire.*

North Lancashire.—Of the physical condition of the collier population in this district the evidence is conflicting; "but the general opinion seems to be that the Children are not unhealthy

where well treated. From my own observation I should say that they were generally thin, their cheeks hollow, and of course pale, with a general appearance of weakness" (Austin, Report, ss. 21, 22 : App. Pt. II., p. 804).

Oldham.—"As they (the collier boys) progress towards manhood and middle age they generally lose all traces of florid health, and acquire a wan complexion. The colliery workers, who are Children generally, however, present an appearance of robust health. If their parents be among the best conducted they are well fed, and have a change of clothes for the Sunday ; cleanliness and comfort characterising their cottages, which are solidly built. On the other hand, the description given of his own treatment and condition by James Taylor (No. 10) is an example of the privations, physical and moral, to which the Children of ill-conducted parents are subject. The dinner of the colliers taken in the pit must be regarded rather as a lunch, which they devour at any opportunity in the course of their labour ; and if this abrogation of the dinner-hour be designed to lessen the time spent underground, and give increased comfort to the more plentiful evening meal at home, it is the choice of a lesser evil. But the hours of labour appear to be irrespective of this arrangement" (Fletcher, Report, s. 59 : App. Pt. II., p. 832).

James Taylor : "Used to take his dinner down with him when he had any, and eat at it as he could, working. Never had anything but butter-cakes [bread and butter] to his dinner. Many a time has gone without both breakfast and dinner altogether, and felt sickly like, and mazy. His mother had now't to give him, because she could na' get now't. Hur said hur had now't for him. Hur said if hur could get a bit for him hur would do, but his father, who was a collier, drank a good deal of his wages. Oftener went to the night-set without his butter-cakes for supper than with them, and felt sickly and mazy then. Was working for David Whitehead, 'an ye know him.' He never axed if he'd come without his butter-cakes, an' he never tou'd him. He ne'er gied him now't. The waggoners, neither, wouldn't gie one another a bit o' butter-cake if they were clamm'd to dead. 'They work only in their clogs, stockings, trousers, and cap. Has porridge and treacle to breakfast when he has any ; bread and butter-cakes to dinner, if he can get them ; and porridge and milk when he comes home ; never any potatoes nor any bread, but what is in his bread and butter-cakes'" (Fletcher, Evidence, No. 10 : App. Pt. II., p. 848, l. 67).—See also Witnesses Nos. 4, 5, 7, 14, 20, 25.

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South Durham.—"The medical evidence in this district describes the colliers as a strong, healthy race, but the work is laborious and exhausting, and the colliers, though healthy, are not long-lived. The collier Children look well. After their day's work they appear as playful as schoolboys come out of school. They are substantially clothed. Both men and boys on Sundays are dressed exceedingly well. The men generally wear a black suit, and a stranger seeing them would hardly suspect them to be the men whom he had seen coming up from the pits begrimed with sweat and coal-dust and as black as negroes. Some of the witnesses in evidence, and all persons in conversation, give the credit to the Wesleyan Methodists of having brought about a great change in the respectability of dress and general good behaviour of the miners" (Mitchell, Report, ss. 212—215 : App. Pt. I., p. 143).—See Witnesses Nos. 94, 96, 97, 99, 101, 107, 108.

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North Durham and Northumberland.—The Sub-Commissioner has collected much evidence relative to the food, clothing, health, and general physical condition of the collier population of this district.

The proprietors and viewers give such evidence as the following :—

"They [the colliers] live well as to food, and generally eat white bread. Pit people are extravagant in their living. The boys are generally well scrubbed after work, and wash themselves carefully. The parents have great credit in keeping them clean after work hours. The boys are better dressed than most boys of the labouring classes" (Leifchild, Evidence, No. 368 : App. Pt. I., p. 643, l. 19).—Mr. William Bailey : "As to luxury, some have flesh meat thrice a-day, and not a few of them twice. Many dress in an extravagant manner on Sundays" (Ibid. No. 400 : p. 649, l. 18).—Mr. Jobling : "The pit people are generally better off than any other labourers ; better fed, better paid, and of a healthy appearance" (Ibid. No. 335 : p. 635, l. 44).—Mr. G. Elliott : "Thinks food is usually sufficient. Will answer for it that white bread of the best flour is commonly used. They do not have much animal food ; they say it makes them dry. Plenty of cheese and bacon is consumed, as well as quantities of cold coffee" (Ibid. No. 367 : p. 642, l. 74).—Mr. Thomas Clarke : "The lads and boys are generally healthy and full grown, and have quite enough food—bacon, or mutton and bread. There is very little sickness amongst them" (Ibid. No. 159 : p. 601, l. 52).

Medical men state as follows :—

William Morrison, Esq., surgeon: "The Children of colliers are comfortably and decently clothed; cleanliness, both in their persons and houses, is a predominant feature in the domestic economy of the female part of this community. The Children, although necessarily left much to themselves, and playing much in the dirt, are never sent to bed without ample ablution. Pitmen, of all labouring classes I am acquainted with, enjoy most the pleasure of good living; their larders abound in potatoes, bacon, fresh meat, sugar, tea, and coffee, of which good things the Children as abundantly partake as the parents; even the sucking infant, to its prejudice, is loaded with as much of the greasy and well-seasoned viands of the table as it will swallow. In this respect the women are foolishly indulgent, and I know no class of persons among whom infantile diseases so much prevail. Durham and Northumberland are not dairy counties, consequently the large population (excepting the *hinds* in the northern part of Northumberland) are very inadequately supplied with milk. Did this wholesome and nutritious beverage more abound, probably the infant population would be more judiciously fed" (Ibid. No. 496: p. 662, l. 28).

T. M. Greenhow, Esq., surgeon, Newcastle: "Their dwellings are generally pretty well constructed, well warmed, and, from the habit of allowing the doors to remain much open, though very hot from large fires, a circulation of air through them is necessarily maintained. They are warmly clothed and well fed; frequently very temperate, especially since the introduction amongst them of teetotalism; and, happily, the nature of their employment renders frequent and thorough ablutions with warm water and soap absolutely necessary. I understand that of late years this wholesome habit has been more diligently attended to than formerly, and with corresponding benefit to health. I am assured that at Walker, where large manufactories of iron and alkali are in the immediate neighbourhood of the colliery, a great contrast is observable in this respect between the colliers and manufacturers, which is greatly in favour of the former. The condition of the skin in relation to health is so important, that, could this most wholesome practice of frequent and complete ablution of the person be introduced into manufactories, a great improvement of health would undoubtedly be produced by it. We might very naturally expect that the very unnatural situation in which the Children employed in the pits are placed, their exclusion from daylight and the open air, would materially influence their physical health, not only at the time, but would so affect their constitutions as to render them liable to particular forms of disease in after-life. Nevertheless, my experience and observation amongst these people do not lead me to infer that any very

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pernicious effects result from these circumstances in such numerous instances as to justify anything like a general conclusion. That the health of the boys is for the most part good is frequently shown in a remarkable manner by their favourable recovery from severe wounds and other accidents. In the general condition of the pitmen there are many circumstances which probably tend to counteract any injurious influence which the nature of their employment might otherwise exert over health. Amongst these may be enumerated the warm flannel dresses in which they work; the thorough washings of the entire person which they practise after the hours of labour, the situation of their houses, and plentiful supply of coals which they enjoy, and the ample means which they generally possess of providing sufficient supplies of wholesome food for their families" (Ibid. No. 498: p. 665, l. 56).—W. Brown, Esq., surgeon of the Jarrow Colliery: "With regard to their physical condition, I am decidedly of opinion that they are not subject to any disorder resulting from the nature of their employment. It seldom happens that a pitman consults me upon any disorder which may not be imputed to their ridiculous and excessive living, or to the ordinary exciting causes possessed in common by other individuals. Their habitations are generally clean and comfortable; a too liberal supply of fuel makes them perhaps prodigal of this comfort, and the health of the family is endangered by predisposing to cold. What I have said above applies equally to boys" (Ibid. No. 349: p. 637, l. 15).

Among others the following Young Persons state that they have always sufficient food: See Witnesses Nos. 58, 124, 145, 403, 407, 435, 468. The following Children, among others, give the same evidence: Nos. 7, 8, 74, 100, 511, 512.

Cumberland.—The Children and Young Persons in this district "present much the same physical phenomena as those of Yorkshire—comparing, of course, those following similar branches of the work. I do not, however, consider the Children, as a body, unhealthy" (Symons, Report, s. 22: App. Pt. I., p. 302). The viewers state, that "a healthier set never can be seen" (Ibid. No. 311); and the medical men represent the Children as "generally healthy and strong" (Ibid. No. 312). The Children and Young Persons themselves give evidence that they have always abundance of food: "We get plenty to eat, and have bacon every day for dinner; we get mutton or beef on Sundays" (Ibid. No. 309). "We have bacon every day for dinner, and mutton at week ends" (Ibid. No. 328). "I always get plenty to eat" (Ibid. No. 324). See also Witnesses Nos. 306, 307, 316, 324, &c.

East of Scotland.—The Sub-Commissioner reports very unfavourably of the health and strength of the collier population of this district, and assigns the following reasons for their bad physical condition:—1st. Because the food taken is too poor in quality and insufficient in quantity to sustain such severe labour, consisting for the most part of oaten cake, oaten bread, or porridge; no butchers' meat; even the hewers do not enjoy the luxury of common table beer, and the Children invariably drink the water in the pit.—2nd. Because the food, bad in quality and scanty in quantity as it is, is always taken most irregularly, there being no fixed time set apart for meals.—3rd. Because the air of the mines in which the work is carried on, and which the workpeople respire, as well as the air of the houses in which they are crowded, instead of being pure, which is indispensable to convert aliment into nutriment, is loaded with noxious matters.—4th. Because the hours of work are much too long for Children of eight years old and under.—5th. Because the medical evidence shows that this labour is injurious to the bodily frame.

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“There exists a general want of cleanliness in the habits of the colliers, with exceptions of course; though I believe it is usual for them to wash their faces once in the day after labour, and sometimes the Children follow the same example; but the younger Children, not at work in the pits, present a miserable appearance. The ragged and dirty clothing of the whole family, the flesh of the Children, which seems perfectly innocent of water, and blackened by the general employment, added to the squalid aspect and unwholesome stench of the place, bespeak at one glance a population neglected and abandoned to a course of life which has blunted the commonest perceptions of human comfort. As might be expected, these hovels are infested with vermin, as are the persons of the Children” (Franks, Report, s. 64 et seq.: App. Pt. I., p. 396).

The statements in proof of these several positions so abound in every page of the Evidence collected by the Sub-Commissioner, that we deem it useless to refer to particular instances.

West of Scotland.—“The labour of Children is often severe for their age, from the early hour at which they rise in the morning, and the physical exertion occasionally necessary in their employment. It appears, however, that from the intervals of

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rest, amounting in most cases to four or five whole days in a fortnight, and from the more nutritious diet general amongst colliers, as well as from the varied motions of the limbs and body in the sort of employment in which the Children are used, no ill effects to their bodily health or conformation result from colliery labour. In the single instance where a pit is habitually worked at night, the health of the Children seems indeed liable to fail, but I trust the employment of Children in such cases will not be allowed much longer. No deterioration was visible to me in the adult colliers, who are usually, I should say, rather athletic in appearance; but the hardness of their labour, and the confined air and dust in which they work, are apt to render them asthmatic, as well as to unfit them for labour at an earlier period of life than is the case in other employments. These effects though, I repeat, seem attributable to the nature of their actual employment, and often to their intemperate habits, rather than to the severity of the labour to which they have been subject in youth, or to the early age at which they began to work" (Tancred, Report, s. 99: App. Pt. I., p. 345).

th Wales.

North Wales.—Of the food, clothing, health, and physical condition of the collier population of this district, the Sub-Commissioner reports:—"In comparing the condition of colliers and miners and their Children with agricultural and other labourers, I found they had better wages, that they live better, their houses are better furnished, and their clothing equal if not superior, nor do they work more hours. Until the years of adolescence, and for some time afterwards, their health and physical condition continue good.

"In respect to food, I must observe that the diet in Wales is of a lower order than that of England. Less of animal and more of milk and farinaceous food is used; but everywhere the Children have a sufficient quantity of nourishing diet, though in quality it may be esteemed inferior. Children at work in the pits and mines breakfast before they leave home; their dinner is brought to them by their friends, and consists of bread, butter, potatoes, a little bacon occasionally, with milk or broth. They have supper at home on their return from work; most of them have a piece of bread and butter to eat between breakfast and dinner, and between dinner and supper, which is eaten while at work.

“Their physical condition is a proof that they have a sufficiency of nutritive food to maintain health and strength, and their food is certainly, both in quality and quantity, equal to that which Children of their station and neighbourhood have who do no work; their clothing is in most instances well calculated for their work and station. The collier boys have thick coarse woollen jackets in common wear; none whom I examined had less than two suits and three shirts.

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“As soon as the Children came up I was surprised and pleased to observe the alacrity with which they went to play; they were quite alive to their amusements, and enjoyed themselves with all the vivacity of youth and health, preferring their games to going home to their food. When examining Mr. James Jones, the underground bailiff at the British Iron Company's Collieries at Ruabon, he, in answer to my question whether the boys were fatigued and wearied by their day's work so that they could not enjoy recreation when it was over, replied in his native tongue, ‘No; they bound like young goats from their work to their play.’ The language was a little figurative, but I found the fact as he stated it.

“From personal examination of the Children and Young Persons at many collieries, and from the information I obtained from several medical men of extensive practice amongst the colliers, I am enabled to state that they are by no means an unhealthy class. I expected to find them suffering under numerous diseases, and martyrs to a thousand accidents; my surprise, however, was excited by their general good health. A little peculiarity may be observed in their gait, from the long-continued action and tension of some of the muscles and the relaxation of others, but it is scarcely observable” (H. H. Jones, Report, ss. 25, 26, 36, 37: App. Pt. II., pp. 368, 369).

South Wales.—In this district, “the Children and Young Persons employed in collieries generally take to their work bread and cheese for their meal in the daytime. A supper is generally provided for the colliers' return, of bacon and vegetables most usually, for the colliers rarely eat much fresh meat during the week” (Franks, Report, s. 49: App. Pt. II., p. 480).

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“In general the Welsh women are remarkable for attention to

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warm clothing, which they secure for themselves in woollens, flannels, &c.; nor are they less anxious for their husbands and children; the men and children are always well defended against the general inclemency of the mountain country. On the return from work it is usual for the workmen and children to be washed; in fact, in lodging-houses it is part of the bargain that the lodger shall be washed every night previous to retiring to rest; a point which, by the way, is strenuously insisted on by the housekeeper (*Ibid.* s. 51, p. 481).

“As affecting the health and comfort of a working population, few subjects are more important than the situation, structure, and drainage of their houses. The situation of houses inhabited by colliers in the county of Glamorgan is generally on the side of a hill, from the hilly character of the country; and as the drainage is almost universally neglected, they are much affected by the heavy rains to which South Wales is particularly exposed, and which pour in torrents down the mountain sides.

Thomas Fellon, Esq., of Blackwood, says—“The houses occupied by the collier population in this neighbourhood are generally built on sloping grounds, where one habitation is above another, and very rarely drained; although it must be obvious, from the side-land situation, that drains are much required.” And, continues that gentleman—“There are places occupied by the poorer part of the population that require to be drained; and as there are no public means for carrying off filth, &c., from these places, it must influence fever during different periods of the year. The interior of the cottages is small, comprising generally two rooms on the floor, one of them used as a bed-room: the rooms above are used as bed-rooms, and there is usually a pantry or scullery in the cottage. This district is particularly hilly, and the houses are for the most part scattered: some are built on elevated spots, while others are near the river, where the fog and damp exist to a much greater degree—in which places low and continued fevers, which frequently end in typhus, exist in a much greater degree than in more airy situations” (*Ibid.* s. 119, 120, p. 489).

“Indeed it would be very difficult to find many collier communities where the drainage can be said to be good: whole villages labour under similar disadvantages; and the absence of privies, &c., amongst the labouring population manifests a want of appreciation of comfort in domestic arrangements. In the large village of Blackwood there are not 10 privies; and it is the more remark-

able where houses are built by the proprietors themselves for the people employed in their collieries and mines that such arrangements are not made: but in a small cluster of houses, called the Land-level Houses, perhaps 25 altogether, which in themselves are well constructed and clean, inhabited by the colliers and other workmen of the Pentyrch Works, there was but *one* privy for the whole community. But perhaps the most miserable hovels inhabited by the working people are to be found in the neighbourhood of the Hirwain Works, and they derive a more comfortless appearance from the barren surface of the plain in which they are situated. Many of these are nothing more than mud-cabins, in many instances a deserted cow-shed converted into a human habitation: a rude thatch forms the roof, and, apparently to avoid the storms that sweep along that plain, they are built in every hollow that can be found, where of course they receive the drainage of the surrounding elevations. Hirwain itself, literally the long meadow, is bordered by a lofty range of hills, and is in many parts boggy and full of water. A more cheerless place could scarcely be found in South Wales: even the school which I visited here more resembles a stable than a place for education, and is almost surrounded with a ditch of dirty water" (Ibid. s. 122, p. 490).

"From a careful examination of the collected evidence, and from attentive inquiry into the several subjects distinguished in this Report, I submit to you the following points as the result of my investigations:—

"That labour in the collieries of the counties of Glamorgan and Pembroke, in South Wales, and of Monmouth in England, is unwholesome, and productive of diseases which have a tendency either to shorten life or reduce the number of years of useful labour in the mechanic.

"That the physical health and strength of Children and Young Persons are deteriorated by their employment at the early ages and in the works before enumerated" (Ibid. ss. 124—126, p. 491).

From the evidence collected in Monmouthshire it also appears that the men and boys in this district "wash themselves all over every evening; that the diet is plain, nutritive, and plentiful generally; one meal of animal food daily, and a liberal quantity

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^{From} of home-brewed beer, the good wages the Children earn enabling ^{the} their parents to provide a more generous diet than the other. ^{sales.} labouring classes can afford; and that the clothing is of a sufficient quantity and proper quality" (R. W. Jones, Evidence, No. 48: App. Pt. II., p. 622, l. 27).

"I have not observed that the physical condition of the Children and Young Persons employed in the works of this district is in any way deteriorated by either the nature or amount of their employment. There may be some cases in which the health of the Children may be affected by their employment, but these cases are few, and not one has yet been brought under my notice worthy of comment, and on this head I must beg to refer you to the Report of Mr. Edward E. Tucker, the experienced resident surgeon at the British Iron Company's Works (R. W. Jones, Report, s. 37: App. Pt. II., p. 586).

"I have not observed, nor have I been able to learn, that any branch of employment at the different works in this district is unfavourable to the health of the Children or Young Persons engaged in it, no cases having been brought under my notice of sickness arising either from the nature or duration of the employment of parties; on the contrary, all the medical men attached to the works which I have visited, and with whom I have been enabled to confer on this subject, agree in stating that the Children and Young Persons employed in the works enjoy a greater share of health, and are freer from the epidemics of the neighbourhood, than Children of similar ages not so employed (Ibid. s. 14, 15: p. 583).

^{it of} *Forest of Dean.*—"My observations and inquiries have alike ^{in.} issued in the conviction that the general health and vigour of colliers and miners are nearly on a par with those of other labourers employed under circumstances apparently more favourable to both. The more hale complexion, and fuller development of manly growth, in the latter class are very observable; but in point of ability for enduring fatigue, and in the average duration of life, there is less difference between them and their underground brethren than is commonly supposed.

"I could not discover that the health of the Children, even of seven or eight years of age, was materially affected by their daily subhumation of eight or ten hours. Their eyes exhibited

no signs of inflammation or weakness; and though pallor of countenance is prevalent, it is by no means universal among them. On the contrary, many of the boys have a robust and even ruddy appearance, after clean water has performed its office on their grim visages. Their general demeanour is cheerful, and they generally profess themselves satisfied with their employment, though always ambitious of advancing to a higher class in the pit, and higher wages. To some lads of more delicate fibre, and active intellect, underground labour is confessedly irksome; and I could not but feel a painful sympathy with several of this description, whose hard fate gives them little hope of any change.

"A striking proof that the human constitution becomes reconciled to severe trials of its hardihood, is found in the absolute impunity with which some of the hod-boys, in ill-drained pits with narrow galleries, continue dragging their loads, day after day, for eight, or ten consecutive hours, on hands and knees, along what is, in fact, a water-drain, though the water may not be more than an inch deep. John Knight (No. 31) is a good illustration of this fact, being a fine, hale-looking and stout lad. He declared he never felt any inconvenience from this slavish work, after he had got it over, though the condition of his hands and knees, besmeared with clay and coal-dust, sufficiently indicated the sort of pathway he is doomed to traverse in performing his daily task.

"Nothing impressed me more with the idea of vital danger to the health of these laborious Children than the sudden transitions they make from the uniform temperature of the mine to the external atmosphere, under all its variations. They often emerge, bare-chested and bare-throated, in a state of copious perspiration, into an atmosphere many degrees lower than that they have been working in, and never seem to think of any precaution. I have observed them hovering, for a few minutes, about a fire near the pit's mouth, as though sensible of a chill; but they appear neither to apprehend nor experience any ill effects. Probably their practice of diligent ablution, after arriving at their homes, restores the healthy action of the pores, and prevents diseases which might otherwise supervene, even in their hardy constitutions" (Waring, Report, ss. 53-62: App. Pt. II., p. 5). The Evidence shows that in general the food and clothing of the Children and Young Persons employed in the coal-mines of this district are substantially good. (See Witnesses Nos. 9, 10, 17, 39 *et seq.*)

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South
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South Gloucestershire.—The physical condition of the collier population in this district is stated to be similar to that of the people employed in the coal mines of the Forest of Dean. To the evidence which shows that the Children and Young Persons in general are well fed and clothed, there are some painful exceptions, of which the following is an example:—

John Harvey, thirteen years of age, a carter in Crown Pit (Mr. Waters's): "Gets potatoes and butter, or potatoes fried with bacon, when he goes home from the pit; gets whatever he can catch; is always very hungry after work; seldom has as much as he could eat. Does not go to Sunday-school, because he has no clothes besides what he works in; cannot read; never had a pair of shoes or stockings in his life." Sub-Commissioner: "This boy has evidently been stunted in his growth: I should say more from want of sufficient food than any other cause. He states that he has rarely as much as he wants, and subsequently acknowledged that he had sometimes gone without food for two or three days! He is straight, and not badly proportioned, but has altogether a melancholy and starveling appearance. Mr. Waters confirmed this boy's statement, on my naming his assertion of having gone without food for two or three days, saying that he learnt the fact too late to obviate such sad privation. It was named to him immediately afterwards, and he knows this poor little fellow did actually work in the pit for three days, without food, for sheer poverty, which should not have happened had he known in time that the boy was so badly off. He has a drunken father, and an improvident mother" (Waring, Evidence, No. 52; App. Pt. II., p. 40, l. 52).

"This lad is a pitiable specimen of a much enduring class of colliery boys, whose subsistence depends on their own exertions, often prematurely stimulated, either from being deprived of their fathers by death, or labouring under the curse of drunken, dissolute, and unfeeling parents, who would apathetically see their Children enslave themselves, rather than contribute to their comfort by a single act of self-denial. These neglected beings turn out in the morning, taking with them a scanty bag of provisions, to be eaten in the bowels of the earth, where they toil out their daily dole of eight or ten hours; then return to a comfortless home, taking their chance of a good meal, a bad one, or none at all. For a bed they are content with an old coal-sack laid upon straw, or occupy whatever portion they can secure of a family bed, which must suffice for three or four other inmates. Grovelling in their habits, depressed in spirit, and without any stimulus to

improvement, these poor boys passively take such work and wages as they can most readily obtain; and if they can satisfy the cravings of hunger, seem to abandon all expectation of anything further, beyond the most sordid covering for their nakedness, and a place of shelter and repose. Some of them will eagerly ask permission to work by night occasionally, as well as by day, for the sake of a small addition to their weekly pittance.

“To these victims of ignorance and poverty the Sabbath is a day of wearisome vacuity, or reckless play. An act of worship is nearly as strange to them as to a Hottentot unenlightened by Christianity. Instruction they have no idea of; and, if they had, the want of decent clothing would keep them from mingling with their better provided yoke-fellows at the Sunday-school. This is, indeed, the picture of an extreme case, but it is only too correct an outline, which might be filled up with still darker colours in portraying the unhappy class to which Harvey belongs. It will be seen by the evidence that this half-fed and half-clothed lad—stunted in growth, so that his companion in carting, though two years younger than himself, is a full head taller—assists in drawing 2 cwt. of coal a distance of 160 yards in a tub without wheels. I did not ascertain how many tubs are carted by these two boys, one pulling and the other pushing behind, during their day's work; but, judging from the general practice, I should say from 50 to 60. Even supposing them to be fewer, this is surely hard labour for the poor returns of 5s. 6d. weekly, that is 3s. to Harvey, and 2s. 6d. to his helper.

“The other boy has a good and careful mother, who feeds him well, and keeps whole garments on his back; whilst Harvey's father is represented to be a drunkard, and his mother an improvident slattern. The poor little fellow told me he had never in his life possessed a pair of shoes or stockings. There is but too manifest a deficiency in nutritious diet and comfortable clothing, in the case of large families, where few are old enough to earn even the smallest pittance. Still the colliers, as a class, are considered better off than the agricultural labourers; and I have every reason to believe this to be the fact” (Waring, Report, ss. 21 *et seq.*: App. Pt. II., p. 32).

North Somersetshire.—“They are, with few exceptions, a strong and robust set of men, and their Children have such a trying

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ordeal to pass through that, on the Spartan principle, they must either sink under it or become hardy and enduring. They do not, however, long retain their full vigour, and they then exchange from 'coal-breaking,' which is the most trying kind of work, to the ordinary labour of clearing the 'ways' and propping the roofs of the galleries. In some mines where 'firedamp' prevails their health gets soon broken from the deleterious quality of the air" (Stewart, Report, s. 9: App. Pt. II., p. 48).

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Ireland.

Ireland.—The two Sub-Commissioners who visited Ireland equally testify to the healthy appearance of the Young People connected with the collieries of both the North and the South of Ireland. Their wages, indeed, procure for them better food than is attainable by the very poor population by which they are generally surrounded. Mr. Roper's description of the young workers at the Dromagh colliery will serve, with slight variations, for the whole:—"Their appearance was very healthy: they said their work was hard, and that they must live well. I found they were much in the habit of using bread instead of potatoes, and had meat two or three times a-week. Cleanliness is a thing not very often met with in Ireland, but these boys I fancy do not wash themselves more than once a-week. It was the dinner-hour when I got there, and not one of them did I see who had washed even his face and hands. Like most of the miners and colliers I have seen in Ireland, they do not generally change their clothes but once a-week" (Roper, Report, s. 5: App. Pt. I. p. 869.—Martin, Evidence, Nos. 47 and 51; Ibid., p. 884, l. 33, and p. 885, l. 33).

Peculiar Effects upon the Physical Condition of Early Employment in Coal Mines.

Although the physical condition generally of the persons employed in collieries, as long as they are able to pursue their labour, is thus seen to derive a favourable character from the advantages procured by superior wages, yet the testimony is equally full to the fact that the nature and circumstances of this labour itself have an appreciable effect upon the Children and Young Persons, especially injurious in the many cases in which it is pursued to excess; and that they entail ultimately grievous diseases, accompanied by an imminent liability to casualties,

which shorten the period during which the labour can be continued, or bring it suddenly to a close by premature death.

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1.—*Immediate Effects of Overworking.*

In describing the circumstances which mainly influence the character of the labour of Children and Young Persons in coal mines, we have already noticed the feelings of fatigue by which the severity that some of those circumstances give to it is commonly measured. Some of the Sub-Commissioners, and a large proportion of the witnesses examined by them, describe fatigue beyond the power of healthful endurance merely as the immediate result of these circumstances of severity, wherever they prevail. Such is the case in North Staffordshire, Oldham, North Lancashire, Cumberland, the West of Scotland, North Wales, South Gloucestershire, and North Somersetshire, and in Ireland. In other districts they bear express testimony to the ample strength of all classes of the workpeople to bear the labour without fatigue, severe as all colliery labour may in some respects be regarded. This is especially seen in South Staffordshire (Mitchell, Evidence, No. 3: App. Pt. I. p. 62, l. 28); Shropshire (Ibid., Report, s. 287, p. 36; and 313, p. 39); Warwickshire (Ibid., Report, s. 16, p. 90); Leicestershire (Ibid., Evidence, passim); and South Durham (Ibid., Report, ss. 212, 215, p. 143; Evidence, Nos. 101, 514, 115, &c.). But there are other districts in which fatigue to the young labourers is described as so common and so severe, as to challenge attention, rather as the result of a general excess of labour, than that of any peculiar form of severity.*

* The feeling of fatigue, when constant and painful, may be regarded as a certain indication that labour is excessive. All the organs of the animal body are directly or indirectly sentient, and the final cause of their being rendered capable of painful sensation is conceived by physiologists to be, that by means of pain warning may be given when they so deviate from the state of health as to be incapable of the due performance of their functions. The painful feeling called fatigue is a monitor of this kind. That health can remain unimpaired, and that the duration of life can reach its natural term, while there is ever present the consciousness of excessive fatigue, is impossible, because by that very feeling the fatigued organs declare that they are worked beyond their strength; and we learn from experience that, if such an amount of work continue to be exacted from them, they not only become progressively weaker, but sooner or later lapse into a state of

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Derbyshire.

Derbyshire.—In this district, as has been shown, the hours of work are commonly 14, and are sometimes extended to 16 out of the 24, and the mines in general are most imperfectly drained and ventilated. Of the fatigue of such labour, so protracted and carried on in such places of work, the following evidence exhibits a striking picture, and it will be observed that the witnesses of every class, children, young persons, colliers, underground stewards, agents, parents, teachers, and ministers of religion, all concur in making similar statements.

Thomas Straw, aged seven, Ilkistou: "They wouldn't let him sleep in the pit or stand still; he feels very tired when he comes out; gets his tea and goes to bed. Feels tired and sleepy on a Sunday morning; would rather be in bed than go to school" (Fellows, Evidence, No. 21: App. Pt. II. p. 269, l. 11).—John Hawkins, aged eight, Underwood: "Is tired and glad to get home; never wants to play" (Ibid. No. 108: p. 293, l. 16).—George Pollard, Strelley: "Feels very tired; his back and shoulders ache; he is always too tired to play" (Ibid. No. 116: p. 295, l. 8).—Thomas Moulton, aged nine, Trowell: "They want no play, but go home to bed as soon as they can" (Ibid. No. 15: p. 267, l. 35).—Matthew Carrington, aged nine, Ilkistou: "Is tired, and very seldom goes out of doors" (Ibid. No. 19: p. 268, l. 45).—Robert Blount, aged ten, Eastwood: "He is always too tired to play, and is glad to get to bed; his back and legs ache; he had rather drive plough or go to school than work in a pit" (Ibid. No. 99: p. 290, l. 44).—Joseph Skelton, aged ten, Underwood: "He is very tired, and always glad to get to bed; had much rather work above ground; they dare not then work them so hard" (Ibid. No. 109: p. 293, l. 35).—Aaron Chambers, aged eleven, Watnall: "He never plays from one week to another; he is too tired without play; had rather do any

positive disease. Disease may not be the manifest and immediate result; on the contrary, the development of disease may be a somewhat slow process, and the manifestation of it proportionally distant; but the ultimate production of it is as certain as the production of any physical effect from the operation of its physical cause. If, then, in great numbers of instances, the labour of the coal mines in its present duration and degree produce throughout the period of Childhood the constant feeling of fatigue, and if this feeling continue, though in a somewhat diminished degree, throughout the period of Adolescence, what, from the known operation of the laws of the animal economy, we should anticipate in Manhood would be a less perfect development of the growth and stature of the body, a less healthy and vigorous physical constitution, and, as the natural consequence, an appreciable diminution in the duration of life.—T. S. S.

work above ground, it is such hard work" (Ibid. No. 101: p. 291, l. 30).—William Hart, aged eleven, West Hallam: "Has felt so tired that he was glad to get home, and too tired to play; has felt very stiff and tired on a Sunday" (Ibid. No. 52: p. 277, l. 40).—Joseph Limb, aged eleven, Loscoe: "Never plays when he has done three-quarters of a day's work, he is too tired" (Ibid. No. 68: p. 282, l. 59).—George Riley, twelve years old, Babbington: "At night is so stiff and sore that when he sits down he can hardly get up again" (Ibid. No. 147: p. 301, l. 56).—William Watson, aged twelve, Watnall: "Always too tired for play, and glad to get to bed" (Ibid. No. 102: p. 291, l. 54).—William Trance, aged twelve, Bagthorpe: "Is very tired and glad to get home; his arms, legs, and back all ache" (Ibid. No. 80: p. 285, l. 50).—Stephen Morley, aged twelve, Newthorpe: "Had rather work above ground, the colliers' work is so hard; often is so tired that his limbs ache again" (Ibid. No. 134: p. 299, l. 8).

John Bostock, aged seventeen, Babbington: "Has often been made to work until he was so tired as to lie down on his road home until 12 o'clock, when his mother has come and led him home—has done so many times when he first went to the pits; he has sometimes been so fatigued that he could not eat his dinner, but has been beaten and made to work until night; he never thought of play, was always too anxious to get to bed; is sure this is all true" (Ibid. No. 146: p. 301, l. 33).—John Leadbeater, aged eighteen, Babbington: "Has two miles to go to the pit, and must be there before six, and works until eight; he has often worked all night, and been made by the butties to work as usual the next day; has often been so tired that he has lain in bed all Sunday. He knows no work so bad as that of a pit lad" (Ibid. No. 138: p. 300, l. 16).—Samuel Radford, aged nineteen, New Birchwood: "Has been a week together and never seen daylight, but on a Sunday, and not much then, he was so sleepy" (Ibid. No. 271: p. 326, l. 45).—See also Nos. 51, 53, 195.

These statements of the Children are fully confirmed by the evidence of the adult workpeople:—

William Fletcher, aged thirty-three, collier, West Hallam: "Considers the collier's life a very hard one, both for man and boy; the latter full as hard as the former" (Ibid. No. 57: p. 279, l. 17).—John Beasley, collier, aged forty-nine, Shipley: "He has known instances where children have been so overcome with the work as to cause them to go off in a decline; he has seen those who could not get home without their father's assistance, and have fallen asleep before they could be got to bed;

has known children of six years old sent to the pit, but thinks there are none at Shipley under seven or eight; in his opinion a boy is too weak to stand the hours even to drive between until he is eight or nine years old; the boys go down at six in the morning, and has known them kept down until nine or ten, until they are 'almost ready to exhaust;' the children and young persons work the same hours as the men; the children are obliged to work in the night if the waggon-road is out of repair, or the water coming on them; it happens sometimes two or three times in the week; they then go down at six P.M. to six A.M., and have from ten minutes to half an hour allowed for supper, according to the work they have to do; they mostly ask the children who have been at work the previous day to go down with them, but seldom have to oblige them; when he was a boy he has worked for 36 hours running many a time, and many more besides himself have done so" (Ibid. No. 40: p. 274, l. 23). William Wardle, aged forty, Eastwood: "There is no doubt colliers are much harder worked than labourers; 'indeed it is the hardest work under heaven'" (Ibid. No. 84: p. 287, l. 51).—Samuel Richards, aged forty, Awsworth: "There are Sunday Schools when they will go; but when boys have been beaten, knocked about, and covered with sludge all the week, they want to be in bed to rest all day on Sunday" (Ibid. No. 166: p. 307, l. 58).—William Sellers, operative, aged twenty-two, Butterley Company: "When he first worked in a pit he has been so tired that he has slept as he walked" (Ibid. No. 222: p. 319, l. 35). William Knighton, aged twenty-four, Denby: "He remembers 'mony' a time he has dropped asleep with the meat in his mouth through fatigue. It is those butties, they are the very devil; they first impose upon them in one way, then in another" (Ibid. No. 314: p. 334, l. 42).—* * * * *, engine man, Babbington: "Has, when working whole days, often seen the children lie down on the pit-bank and go to sleep, they were so tired" (Ibid. No. 137: p. 300, l. 10).—John Attenborough, schoolmaster, Greasley: "Has observed the collier children are more tired and dull than the others, but equally as anxious to learn" (Ibid. No. 153: p. 304, l. 22). Ann Birkin: "Is mother to Thomas and Jacob, who work in Messrs. Fenton's pits; they have been so tired after a whole day's work that she has at times had to wash them and lift them into bed" (Ibid. No. 81: p. 285, l. 59).—Hannah Neale, Butterley Park: "They come home so tired that they become stiff, and can hardly get to bed. Constantine, the one ten years old, formerly worked in the same pit as his brothers, but about half a year since his toe was cut off by the bind falling; notwithstanding this, the loader made him work until the end of the day, although in the greatest pain. He was out of work more than four months owing to this accident" (Ibid.

No. 237 : p. 320, l. 51).—Ellen Wagstaff, Watnall : “ Has five children, three at Trough-lane and two at Willow-lane, Greasley ; one at Trough-lane is eighteen, one fourteen, one thirteen years of age ; and those at Willow-lane are sixteen and nineteen ; they are variously employed ; the youngest was not seven years old when he first went to the pits. The whole have worked since they were seven or seven and a half ; they have worked from six to eight ; from six to two for half days, no meal-time in half days ; she has known them when at full work so tired when they first worked, that you could not hear them speak, and they fell asleep before they could eat their suppers ; ‘ it has grieved her to the heart to see them ’ ” (Ibid. No. 104 : p. 292, l. 18).—Ann Wilson, Underwood : “ Is mother to Richard Clarke and mother-in-law to Matthew Wilson. Has heard what they have said, and believes it to be true ; has known when they work whole days they have come home so tired and dirty, that they could scarcely be prevented lying down on the ashes by the fireside, and could not take their clothes off ; has had to do it for them, and take them to the brook to wash them, and has set up most of the night to get their clothes dry. The next morning they have gone to the pit like bears to the stake ” (Ibid. No. 112 ; p. 294, l. 5).—Haannah Brixton, Babbington : “ The butties slave them past anything. Has frequently had them drop asleep as soon as they have got in the house, and complain of their legs and arms aching very bad ” (Ibid. No. 149 : p. 302, l. 44).

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William Hawley, schoolmaster, Ilkiston : “ Has certainly perceived those children who work in the pits much more dull and stupid than the others, both at school and chapel ; it is his opinion children are sent to work at the pits too young, and it is decidedly too long for children to work from six to eight ; he has often to complain of the colliers’ children’s bad attendance on Sunday mornings, and the reply generally is, they were so tired, they overslept themselves ” (Ibid. No. 32 : p. 271, l. 47).—Isaac Rowbotham, schoolmaster, West Hallam : “ Has observed boys who have been brought up in the free-school, and afterwards worked in a pit, and attended the Sunday-school, read much worse than they formerly did, appear duller, and more tired than other boys, although equally as willing to learn ” (Ibid. No. 59 : p. 279, l. 7).—Samuel Brentnall, Kimberley School : “ Has been superintendent more than six years ; has observed the pit-boys much duller and more stupid at learning ; they are very heavy and drowsy, and frequently drop asleep during the service ; has observed this more so amongst the younger ones ” (Ibid. No. 165 : p. 307, l. 19).—Daniel Hook, schoolmaster, Radford : “ Has often observed and mentioned it that the pit-boys are anxious and willing to be taught, but he scarcely ever knew one but what was duller than the other boys in the school, and always appeared

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Yorkshire. more tired and sleepy" [This opinion was agreed to by the other teachers] (Ibid. No. 4: p. 264, l. 6).—Samuel Morris, school-master, Ilkiston: "Has noticed that they are much more tired than other boys, and do not come before 10; they are also much more apt to sleep during the service than others" (Ibid. No. 30: p. 271, l. 29).—William Robinson, Sunday-school teacher, Ilkiston: "Has taught the class where the principal part of the collier-boys are; he finds them duller and more tired than the other boys; has often seen even the bigger boys fall to sleep, and is sure they are not so quick as the frame-work knitting boys; they have told him, excepting on a Sunday, they are months without seeing daylight; another reason is, that being so fatigued they do not attend school-hours so well as the other boys; they often tell him they could not awake: he finds they are as willing, but far backward than the other boys who are not so old" (Ibid. No. 31: p. 271, l. 35).—Rev. F. Hewgill, rector, Radford: "He certainly thinks, indeed has noticed, they are more dull than their school-fellows" (Ibid. No. 6: p. 264, l. 54).—Rev. W. J. Hobson, minister of Trowell: "He has observed they appear more tired, and do not attend so early, and the parents, when applied to, often say they come home so wearied they cannot get them to school in time" (Ibid. No. 11: p. 266, l. 33).

Yorkshire. *West Riding of Yorkshire.*—In this district the coal-owners in general, and most of the managers and underground stewards, state that the work is not particularly severe, and that the Children and Young Persons are not fatigued by it. Some few of the girls and boys themselves say that they like the work, and that it does not fatigue them: a few others state that it tired them at first, but that they have now become used to it, and that it does not fatigue them much; but the great majority say that they are always tired, and the language which many of them use to express their sensations shows that they feel their labour to be extremely oppressive.

Mr. George Traviss, coal master, Barnsley: "I do not think the children are overworked so as to hurt them. They always appear to me to be very cheerful, and run and play about when they come out of the pit in the evening" (Symons, Evidence, No. 84: App. Part I., p. 243, l. 55).—Robert C. Clarke, Esq., coal-master, Silkstone: "I think they are not overworked, because I know they will run home when they get out of the pits, and are up to all sorts of mischief and fun" (Ibid. No. 140: p. 261, line 67).—William Newbould, Esq., coal-master: "They could learn in the evenings if they chose; they are not too

tired with their work to do so" (Ibid. No. 15: p. 230, l. 6).—*Coal and Iron Mines. — Immediate Effects of Overworking — Yorkshire.*
 Among others the following Children and Young Persons, all of whom are upwards of eleven years of age, and most of them upwards of fourteen, state that they are not fatigued by their work: Witnesses Nos. 213, 301, 302, 307, 316, 318, 319, 326, 327.

Some of the coal-owners themselves, however, together with their agents and all other classes of witnesses, corroborate the statements of most of the Children and Young Persons, as to the severity of the labour and the great fatigue produced by it.

John Twibell, Esq., coal-master, Barnsley: "I am confident that children ought to be prevented from going into pits till ten years old. It has a bad effect on their minds, and tends to cripple their strength" (Ibid. No. 111: p. 251, l. 50).—Moses Kay, underground steward to Mr. Barber, Rawmarsh: "It is hard work hurrying. They are tired at night" (Ibid. No. 52: p. 236, l. 45).—Mr. John Clarkson Sutcliffe, agent for the Gauber Colliery, belonging to the executors of Mr. Samuel Thorpe: "When the children are allowed to go in too little, they are certainly tired, and, from unfeeling parents, this is sometimes the case" (Ibid. No. 118: p. 253, l. 39).—George Norburn, pit steward to Mr. Swann of Chapelton: "Very little is learnt in the evening schools; the boys are wearied and not disposed to go; they would rather, when it's light and fine in the summer time, go out to play when they are not too tired" (Ibid. No. 71: p. 241, l. 16).—William Froggatt, underground steward, Mr. Swann's Colliery, Chapelton: "The children are harder worked in these pits, and are well tired at night. Not many fall ill" (Ibid. No. 73: p. 241, l. 58).

John Rawson, collier, aged forty: "I work at Mr. Sorby's pit, Handsworth. I think children are worked over much sometimes" (Ibid. No. 81: p. 243, l. 25).—Peter Waring, collier, Billingley: "I never should like my children to go in. They are not beaten, it is the work that hurts them. It is mere slavery, and nothing but it" (Ibid. No. 125: p. 256, l. 6).—John Hargreave, collier, Thorpe's colliery: "Hurrying is heavy work for children. They ought not to work till they are twelve years old, and then put two together for these heavy corves" (Ibid. No. 130: p. 256, l. 44).—Mr. Timothy Marshall, collier, aged thirty-five, Darton: "I think the hurrying is what hurts girls, and it is too hard work for their strength. I think that children cannot be educated after they once get to work in pits; they are both tired and even disinclined to learn when they have done work" (Ibid. No. 141: p. 262, l. 39).—A collier at Messrs. Traviss's pit: "The children get but little schooling; six or seven out of nine or ten know nothing. They never go to night-schools, except some odd ones.

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When the children get home they cannot go to school, for they have to be up so early in the morning—soon after four—and they cannot do without rest" (Ibid. No. 94: p. 246, l. 33).—Mr. George Armitage, aged thirty-six, formerly collier at Silkstone, now teacher at Hayland school: "Little can be learnt merely on Sundays, and they are too tired as well as indisposed to go to night-schools. I am decidedly of opinion that when trade is good the work of hurriers is generally continuous; but when there are two together, perhaps the little one will have a rest when the big one is filling or riddling" (Ibid. No. 138: p. 261, l. 24).

William Firth, between six and seven years old, Deal Wood Pit, Flockton: "I hurry with my sister. I don't like to be in pit. I was crying to go out this morning. It tires me a great deal" (Ibid. No. 218: p. 282, l. 11).—John Wright, hurrier in Thorpe's colliery: "I shall be nine years old next Whitsuntide. It tires me much. It tires my arms. I have been two years in the pit, and have been hurrying all the time. It tires the small of my arms" (Ibid. No. 129: p. 256, l. 31).—Daniel Drenchfield: "I am going in ten. I am more tired in the forenoon than at night; it makes my back ache; I work all day, the same as the other boy; I rest me when I go home at night; I never go to play at night; I get my supper, and go to bed" (Ibid. No. 63: p. 238, l. 32).—George Glossop, aged twelve: "I help to fill and hurry, and am always tired at night when I've done" (Ibid. No. 50: p. 236, l. 21).—Martin Stanley: "I tram by myself, and find it very hard work. It tires me in my legs and shoulders every day" (Ibid. No. 69: p. 240, l. 27).—Charles Hoyle: "I was thirteen last January. I work in the thin coal-pit. I find it very hard work. We work at night one week, and in the day the other. It tires me very much sometimes. It tires us most in the legs, especially when we have to go on our hands and feet. I fill as well as hurry" (Ibid. No. 78: p. 242, l. 41).—Jonathan Clayton, thirteen and a half years old, Soap Work Colliery, Sheffield: "Hurrying is very hard work; when I got home at night I was knocked up" (Ibid. No. 6: p. 227, l. 48).—Andrew Roger, aged seventeen years: "I work for my father, who is an undertaker. I get, and have been getting two years. I find it very hard work indeed; it tires me very much; I can hardly get washed of a night till nine o'clock, I am so tired" (Ibid. No. 60: p. 237, l. 49).—["This witness," says the Sub-Commissioner, "when examined in the evening after his work was over, ached so much with fatigue that he could not stand upright"] (Report, s. 109: App. Pt. I., p. 181).—Joseph Reynard, aged nineteen, Mr. Stancliffe's pit, Mirfield: "I began hurrying when I was nine; I get now; I cannot hurry because one leg is shorter than another. I have had my hip bad since I was fifteen. I am very tired at night. I worked in a wet place to-day. I

have worked in places before as wet as I have been in to-day. [I examined Joseph Reynard; he has had several large abscesses in the thigh from hip-joint disease. The thigh-bone is dislocated from the same cause; the leg is about three inches shorter; the spinal column is curved; two or three of the abscesses are now discharging. No appearance of puberty from all the examinations I made. I should not think him more than eleven or twelve years of age, except from his teeth. I think him quite unfit to follow any occupation, much less the one he now occupies. (Signed) U. Bradbury, surgeon.]—"This case," says the Sub-Commissioner, "is one reflecting the deepest discredit on his employers" (Symons, Evidence, No. 272: App. Pt. I., p. 293, l. 29).—Elizabeth Eggle, sixteen years old: "I find my work very much too hard for me. I hurry alone. It tires me in my arms and back most. I am sure it is very hard work and tires us very much; it is too hard for girls to do. We sometimes go to sleep before we get to bed" (Ibid. No. 114: p. 252, l. 44).—Ann Wilson, aged ten and a half, Messrs. Smith's colliery: "Sometimes the work tires us when we have a good bit to do; it tries me in my back. I hurry by myself. I push with my head" (Ibid. No. 229: p. 284, l. 12).—Elizabeth Day, hurrier, Messrs. Hopwood's pit, Barnsley: "It is very hard work for us all. It is harder work than we ought to do, a deal. I have been lamed in my ankle, and strained in my back" (Ibid. No. 85: p. 244, l. 33).—Mary Shaw: "I am nineteen years old. I hurry in the pit you were in to-day. I have ever been much tired with my work" (Ibid. No. 123: p. 249, l. 38).—Ann Eggle, hurrier in Messrs. Thorpe's colliery: "The work is far too hard for me; the sweat runs off me all over sometimes. I'm very tired at night. Sometimes when we get home at night we have not power to wash us, and then we go to bed. Sometimes we fall asleep in the chair. Father said last night it was both a shame and a disgrace for girls to work as we do, but there was nought else for us to do. The girls are always tired" (Ibid. No. 113: p. 252, l. 17).—Eliza Coats: "I hurry with my brother. It tires me a great deal, and tires my back and arms" (Ibid. No. 115: p. 252, l. 59).—Elizabeth Ibbetson, at Mr. Harrison's pit, Gomersal: "I don't like being at pit; it's too hard work for us. It tires my legs and arms. I push the corf with my head, and it hurts me, and is sore" (Ibid. No. 266: p. 292, l. 17).

Margaret Gomley, Lindley Moor, aged nine: "Am very tired" (Scriven, Evidence, No. 9: App. Pt. II., p. 103, l. 34).—James Mitchell, aged twelve, Messrs. Holt and Heblewaite's: "I am very tired when I get home; 'tis enough to tire a horse, and stooping so much makes it bad" (Ibid. No. 2: p. 101, l. 32).—William Whittaker, aged sixteen, Swan Bank, Mr. Rawson's colliery: "I am always very tired when I go home" (Ibid. No.

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Mines. 13: p. 104, l. 55).—George Wilkinson, aged thirteen, Low Moor:
“Are you tired now?—Nay. Were you tired then?—Yea.
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overworking. What makes the difference?—I can hurry a deal better now”
(W. R. Wood, Esq., Evidence, No. 18: App. Pt. II., p. h 11,
l. 30).—John Stevenson, aged fourteen, Low Moor: “Has worked
Yorkshire. in a coal-pit eight years, went in at six years old: used to rue to
go in, does not rue now; was very hard work when he went in,
and ‘I were nobbud a right little one;’ was not strong enough
when he first went, had better have been a bit bigger; used to
be very tired; sleeps well, did not when first he went; ‘I waur
ill tired’” (Ibid. No. 15: p. h 10, l. 39).—Jabez Scott, aged
fifteen, Bowling Iron Works: “Work is very hard; sleeps well
sometimes, sometimes is very ill tired and cannot sleep so weel”
(Ibid. No. 38: p. h 19, l. 29).—William Sharp, Esq., F.R.S.,
surgeon, Bradford, states, “That he has for twenty years profes-
sionally attended at the Low Moor Iron Works; that there are oc-
casionally cases of deformity, and also bad cases of scrofula, appa-
rently induced by the boys being too early sent into the pits, by
their working beyond their strength, by the constant stooping, and
by occasionally working in water” (Ibid. No. 60: p. h 27, l. 45).

Lancashire. *Lancashire*.—Various witnesses examined by Mr. Kennedy
describe their labour as producing great exhaustion:—

Rosa Lucas, aged eighteen, Lamberhead Green: “Do you find
it very hard work?—Yes, it is very hard work for a woman. I
have been so tired many a time that I could scarcely wash my-
self. I could scarcely ever wash myself at night, I was so tired;
and I felt very dull and stiff when I set off in the morning”
(Kennedy, Evidence, No. 92: App. Pt. II., p. 231, l. 53).—
James Crabtree, aged fifteen, Mr. Dearden’s, near Todmorden:
“Is it hard work for the lads in winter?—My brother falls asleep
before his supper, and the little lass that helps him is often very
tired” (Ibid. No. 71: p. 229, l. 11).—Peter Gaskell, Mr. Lan-
caster’s, near Worsley: “Has four sisters, and they have all
worked in the pits; one of them works in the pits now; she
sometimes complains of the severity of her work. Three years
ago, when they had very hard work, I used to hear her complain
of the boils on her back, and her legs were all eaten with the
water; she had to go through water to her work; she used to go
about four or five o’clock in the morning, and stay till three or
four in the afternoon, just as she was wanted; I have known her
to be that tired at night that she would go to sleep before she
had anything to eat” (Ibid. No. 29: p. 217, l. 36).

Lancashire. *North Lancashire*.—Mr. Austin, after giving a deplorable pic-
ture of the labour of Young Children in the thin-seam mines,
illustrates its effect by the words of the parents of some young

workers. "I wish," one of them states, "you could see them come in; they come as tired as dogs, and throw themselves on the ground like dogs (here pointing to the hearthstone before the fire); we cannot get them to bed" (Austin, Report, s. 11: App. Pt. II. p. 803).

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North Durham and Northumberland.—The chief employment of Children and Young Persons in the coal mines of this district, namely, in putting, is very severe: none but those who possess strong constitutions and robust health can bear it without extreme fatigue; and different classes of witnesses state that great numbers of the younger Children are often completely exhausted by the labour, while those more advanced in years say that it deprives them of appetite and produces the constant feeling of sickness. The Sub-Commissioner observes that "the silence of some putters on the oppressiveness of their employment must be considered in connexion with the fact that they possess no standard with which to compare their labour; for in neighbourhoods where the inhabitants are wholly colliery workers, remote from towns, it is probable that the younger boys have never witnessed any other species of juvenile employment. Hence, too, when some reply that their putting is easy, such answers must be received as merely implying that it is easy in comparison with difficult putting; while, in fact, the lightest of that labour requires very considerable exertion. 'Canny' or easy putting being all that a boy can expect, his ideas of hardship are associated only with very laborious putting. A considerable variation, however, of the degrees of difficulty is observable in different collieries, as well from artificial causes as from the natural position of the seams of coal. All collieries situated within half a mile north of the great ninety-fathom dyke, which has intruded itself into the northern depository of fossil fuel, are necessarily subject to 'banky' or lilly putting, as the seam rises from nine or ten inches to the yard, and then dips correspondingly. Their labour (that of the helpers-up) is necessarily severe, as they are only employed in emergencies. Occasionally its severity is productive of painful effects, as in Nos. 145, 457, &c." (Leifchild, Report, ss. 52, 53: App. Pt. I., p. 522.)

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The Sub-Commissioner further states that the youngest of the putters, those called "foals," are greatly to be commise-

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rated; that many of them declared that the severity of the labour was such that they would willingly suffer a proportionate diminution of wages to secure a limitation of the hours of work; that in endeavours temporarily to increase his earnings, the putter is frequently regardless of fatigue, and, were he permitted, would oftentimes only terminate his toil by entire physical exhaustion; yet, notwithstanding that this is so well known a characteristic of the putter, the agents represent the labour as perfectly voluntary, and, even in cases of double and treble shifts undergone by the same boy, state that the undertaking is quite optional (*Ibid.* ss. 56, 57: p. 523).

Twenty boys at the Walker Colliery: "The 20 witnesses, when questioned collectively, say, that the way is so very dirty, and the pit so warm, that the lads often get tired very soon" (Loif-child, Evidence, No. 291: App. Pt. I., p. 627, l. 66).—Nineteen boys, examined together, of various ages, of whom the spokesman was William Holt, seventeen years old, putter: "The bad air, when they are whiles working in the broken, makes them sick. Has felt weak like in his legs at those times. Was weary like. Has gone on working, but very slowly. Many a one has had to come home before getting a fair start, from the bad air and hard work. Hours are too long. Would sooner work less hours and get less money" (*Ibid.* No. 300: p. 629, l. 1).—Twenty-three witnesses assembled state, "That their work is too hard for them; that they feel sore tired; that some of them constantly throw up their meat from their stomachs; that their heads often work [ache]; the back sometimes; and the legs feel weak" (*Ibid.* No. 354: p. 639, l. 18).—John Wilkinson, aged thirteen, Piercy Main Colliery: "Was in for a double shift about five weeks ago, and fell asleep about one o'clock, P.M., as he was going to lift the limmers off to join the rolleys together, and got himself lamed by the horse turning about and jamming one of his fingers. Split his finger. Was off a week from this accident. Sometimes feels sick down the pit; felt so once or twice last fortnight. Whiles his head works [aches]; and he has pains in his legs, as if they were weak. Feels pains in his knees. Thinks the work is hard for foals, more so than for others" (*Ibid.* No. 60: p. 579, l. 22).—John Middlemas: "Sometimes, but very rarely, they work the whole double-shift; that is, they go down at four o'clock, A.M., and do not come up till four o'clock in the day after that, thus stopping down 36 hours, without coming up sometimes; and sometimes they come up for a half-hour, and then go down again. Another worked for 24 hours last week, and never came up at all. Another has stopped down 36 hours without coming up at all

twice during last year. When working this double-shift, they go to bed directly they come home" (Ibid. No. 98: p. 588, l. 42).—Michael Turner, helper-up, aged fourteen and a-half, Gosforth Colliery: "Mostly he puts up-hill the full corves. Many times the skin is rubbed off his back and off his feet. His head works [aches] very often, almost every week. His legs work on sometimes so that he can hardly trail them. Is at hard work now, shoving rolleys and hoisting the crane; the former is the hardest work. His back works very often so that he has sometimes to sit down for half a minute or so" (Ibid. No. 145: p. 598, l. 58).—George Short, aged nearly sixteen: "Hoists a crane. His head works [aches] very often, and he feels sickish sometimes, and drowsy sometimes, especially if he sits down. Has always been drowsy since he went there. Twice he has worked three shifts following, of 12 hours each shift; never came up at all during the 36 hours; was sleepy, but had no time to sleep. Has many times worked double shifts, of 19 hours, and he does this now nearly every pay Friday night. A vast of boys work in this shift, 10 or 11, and sometimes more. The boys are very tired and sleepy" (Ibid. No. 191: p. 606, l. 41).—John Maffin, sixteen years old, putter, Gosforth Colliery: "Was strong before he went down pits, but is not so now, from being over-hard wrought, and among bad air" (Ibid. No. 141: p. 598, l. 2).—Robert Hall, seventeen years old, half-marrows, Felling Colliery: "The work of putting makes his arms weak and his legs work all the day; makes his back work. Is putting to the dip now in a heavy place. Each one takes his turn to use 'soams' [the drawing straps]; one pulls with them, and the other shoves behind. Both are equally hard. If it is a very heavy place there are helpers-up, but not so many as they want. Has known one sore strained by putting."—John Peel, aged 13: "Is off now from this. Is healthy in general, but is now and then off from this work" (Ibid. No. 325: p. 634, l. 11).—Michael Richardson, fifteen years old, putter, St. Lawrence Main Colliery: "About three-quarters of a year since he wrought double-shift every other night, or, rather, he worked three times in 11 days for 36 hours a time without coming up the pit. About six months ago he worked three shifts following, of 12 hours each shift, and never stopped work more than a few minutes now and then, or came up the pit till he was done. There was then some night-work to do, and the overman asked him to stop, and he could not say no, or else he [the overman] would have frowned on him and stopped him perhaps of some helpers-up. Thinks the hours for lads ought to be shortened, and does not know whether it would not be better even if their wages were less" (Ibid. No. 270: p. 623, l. 32).—James Glass, eighteen years old, putter, Walbottle: "Puts a tram by himself. Has no helper-up and no assistance. Mostly puts a full tram up. Is

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putting from a distance now. Mostly the trams are put by one person. Was off work the week before last three days by being sick. Was then putting in the night-shift, and had to go home and give over. Could not work. His head works nearly every day. He is always hitting his head against stone roofs. His arms work very often. Has to stoop a good deal. The weight of his body lies upon his arms when he is putting. The skin is rubbed off his back very often" (Ibid. No. 244: p. 619, l. 27).—Mr. James Anderson, a home missionary, residing in Easington Lane, Hetton-le-Hole, in reply to queries proposed, handed in the following written evidence: "The boys go too soon to work; I have seen boys at work not six years of age, and though their work is not hard, still they have long hours, so that when they come home they are quite spent. I have often seen them lying on the floor fast asleep; then they often fall asleep in the pit, and have been killed. Not long ago a boy fell asleep, lay down on the way, and the waggons killed him. Another boy was killed; it was supposed he had fallen asleep when driving his waggon, and fallen off and was killed" (Ibid. No. 446: p. 655, l. 62).

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East of Scotland.—From the tender age and sex of the great proportion of the workpeople, the long hours of work, the wretched condition of the pits, and the meagre and unsubstantial food, the degree of fatigue produced by colliery labour in this district is extreme. "The tender and feeble powers of girls and boys of this age (eight years old and under) must be taxed beyond their strength by an uninterrupted labour of twelve hours' average daily—labour called for at irregular periods, sometimes by day and sometimes extending through the whole night. The medical evidence shows that this labour is injurious to the bodily frame; from the exhaustion of their labour they are in most instances too fatigued even to attend their evening-school, should one be found in their neighbourhood; and, after taking a meagre supper of kail and porridge, they are but too glad to seek the ill-provided rest which is to prepare them for the toil of the succeeding day" (Franks, Report, s. 61: App. Pt. I., p. 395).

Barney Walker, ten years old, Blindwells, St. Germain's, Beving Pit, East Lothian: "Pushes the carts and carries coal; I go down at six in the morning, and go home at seven, when mother sends me to bed, as I am so fatigued" (Franks, Evidence, No. 161: App. Pt. I., p. 465, l. 54).—Catherine Thompson, eleven years old, putter, Redding Collieries, Stirlingshire: "We both work on father's account, and draw his coal; the hutchies hold 8 cwt., which we have first to fill before we

draw: the distance we draw is said to be full 1000 yards. I can scarcely stand after I have been running and pushing all day" (Ibid. No. 226: p. 478, l. 29).—Ellison Jack, a girl eleven years old, Loanhead Colliery, Mid-Lothian: "My task is four to five tubs; each tub holds $4\frac{1}{2}$ cwt. I fill five tubs in 20 journeys. Am very glad when my task is wrought, as it sore fatigues" (Ibid. No. 55: p. 446, l. 60).—Jesse Wright, eleven years old, coal-bearer, Edmonstone Colliery, Mid-Lothian: "Don't like the work at all; daylight is better; the 'work is horrible sair.' When mother and father first took me down I was frightened at the place; have got a little used to the work, but it crushes me much. I leave work when bad air is in the pit, which frequently has occurred" (Ibid. No. 13: p. 439, l. 8).—Jane Young, eleven years old: "I am very sore fatigued when home, and have little time to look about me" (Ibid. No. 63: p. 448, l. 31).—Robert Seton, eleven years old, coal-putter, Rosewell and Barley Dean Collieries, Mid-Lothian: "Father took me down when I was six years old, and I have wrought below ever since. Brother and I draw one waggon, which holds 6 cwt. of coal. The work is as sair as ever laddie put his hand to" (Ibid. No. 80: p. 451, l. 62).—Andrew Young, eleven years of age, coal-putter, Arniston Colliery, Mid-Lothian: "Draws with the ropes and chains; slype first to the main road, and then pull to the pit bottom on the railroads; sometimes I have to slype 100 to 300 fathoms, according to the rooms the men work in; the wall is far away from level road. We draw as the horses do, only we have no wheels to the slypes, therefore the work is very sore. Boys frequently fall under the slypes, and get much injured. When we descend a brae, the practice is to hang on in front, and other laddie to pull behind; but with the baskets holding 5 cwt. we are frequently overpowered" (Ibid. No. 87: p. 453, l. 32).—Jane Kerr, twelve years old, coal-bearer, Dryden Colliery, Mid-Lothian: "I work every day. The work is very sair and fatiguing. I would like to go to school, but canna wone [go] owing to sair fatigue" (Ibid. No. 64: p. 448, l. 35).—Elizabeth Selkirk, eleven years old, coal-drawer, Haugh Lynn Colliery, Mid-Lothian: "Works from three in the morning till four and five in the afternoon, and frequently all night. The work is so sore that canna help going to sleep when waiting for the gig to draw. Father is very bad in the breath, so I am wrought with brother. I do not always change mysel, as one o'erfatigued. We have had much trouble [sickness]. My work causes me to stoop double, and when I draw I crawl on all-fours, like the cuddies. [Very sickly emaciated child, subject to severe pains in limbs and bowels, arising no doubt from overwork and want of food. Her parents, with seven children, live in a wretched hovel at Perthhead; the room not more than 10 feet by 14; the

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furniture consisted of two old bedsteads, nearly destitute of covering, and a few old stools and bits of broken crockery.]” (Ibid. No. 111: p. 457, l. 32).—David Woddell, eleven years old, picks and draws, Edgehead Colliery, Mid-Lothian: “I work fourteen and fifteen hours, and work every day except Monday, when I stay up because father does; sister and I work, and we are very sore wrought just now, as we have night and day work. Father cannot labour much, as he is nearly done in the breath; I don’t know how old he is. Mother is clean done for; she can hardly breathe, and has not worked for some years” (Ibid. No. 103: p. 456, l. 11).

James Miller, twelve years old, coal-hewer, Still Colliery, Stirlingshire: “Worked at picking and riddling coal upwards of two years; does so as often as the state of the pit will allow. Occasionally much wet in the pit, sometimes bad air. Has fallen asleep often; has na muckle time to do so now, as I am over-sore worked” (Ibid. No. 271: p. 486, l. 7).—David Smith, twelve years old, coal-drawer, Preston Hall Colliery, Mid-Lothian: “Draws in harness; it is very horrible sore work; do not like it; would like daylight work better, drawing is so sair” (Ibid. No. 106: p. 456, l. 48).—Janet Moffatt, twelve years old, putter, New Craig-hall Colliery, Mid-Lothian: “I draw the carts through the narrow seams. The roads are 24 to 30 inches high; draw in harness, which passes over my shoulders and back; the cart is fastened to my chain. The place of work is very wet, and covers my shoe-tops. I pull the waggons, of 4 to 5 cwt., from the men’s rooms to the horse-road. We are worse off than the horses, as they draw on iron rails, and we on flat floors” (Ibid. No. 70: p. 449, l. 48).—William Naysmith, twelve years old, putter, Rosewell and Barley Dean Collieries, Mid-Lothian: “It is very hard, extraordinary hard work. I am now learning to hew the coal” (Ibid. No. 82: p. 452, l. 18).—Archibald Muckle, twelve years old, coal-hewer, Edgehead Colliery, Mid-Lothian: “I go down at four in the morning, and don’t come up till six and seven at night: it is very sair work, and am obliged to lie on my side, or stoop, all the time, as the seam is only 24 to 26 inches high. There is much bad air below, and when it rises in our room we shift, and gang to some other part, and leave when the pit is full, as it stops our breath. The pit is very wet, and am compelled to shift myself when home on that account. Never been to day-school since down: go to the night as often as the labour will allow, am so sore fatigued” (Ibid. No. 97: p. 455, l. 7).—John King, aged twelve years, coal-hewer, Sheriff Hall and Somerside Collieries, Mid-Lothian: “The work takes away the desire for food, as it is o’ersair” (Ibid. No. 4: p. 437, l. 3).—Isabella Read, twelve years old, coal-bearer, Edmonstone Colliery, Mid-Lothian: “Works on mother’s account, as father has

been dead two years. I am wrought with sister and brother, it is very sore work; cannot say how many rakes or journeys I make from pit's bottom to wall-face and back, thinks about 30 or 25 on the average; the distance varies from 100 to 250 fathom. I carry about 1 cwt. and a quarter on my back; have to stoop much and creep through water, which is frequently up to the calves of my legs. When first down fell frequently asleep while waiting for coal, from heat and fatigue. I do not like the work, nor do the lassies, but they are made to like it. When the weather is warm there is difficulty in breathing, and frequently the lights go out" (Ibid. No. 14: p. 439, l. 22).—George Wright, twelve years old, coal-putter, Blindwell, St. Germain's, Beving Pit, East Lothian: "Works 12 to 14 hours with father. The place I draw in is wet; the water comes up to my knees. Am much fatigued by the work, which is distressing, being 300 fathoms from coal to pit bottom, and makes me very sick. Never been able to get the knowledge of the letters, as I am so sore wrought. [Poor, ignorant, miserable object.]" (Ibid. No. 162: p. 466, l. 2).—Catherine Meiklejohn, aged twelve, coal-bearer, Blindwell, St. Germain's, Beving Pit, East Lothian: "I start to work at five in the morning, and lay by at six at night. I bring coal from the wall-face to pit-bottom—large pieces on my back, small in a creel. The distance of my journey about 200 fathoms. It takes me three burthens to fill one tub of 5½ cwt. My back is very sore at times, but I never lie idle. Would not like to work so long, only father bids me. [A most intelligent, healthy girl. Few men could do one-third the labour this lassie is compelled to perform.]" (Ibid. No. 164: p. 466, l. 19.)

William Woods, fourteen years of age, coal-hewer, Sheriff Hall and Somerside Collieries, Mid Lothian: "The sore labour makes me feel very ill and fatigued; it injures my breath. [I examined this boy on the Saturday, at a cottage near the pit, and the state of exhaustion he was in can scarcely be imagined]" (Ibid. No. 8: p. 437, l. 58).—John Baxter, aged fifteen years, coal-hewer, Collinshield Collieries, Linlithgowshire: "I work from two in the morning till six at night; done so for five years. My adopted mother puts my coal. The work is gai sore for both of us, but the woman has been a real kind friend to me, as I lost my mother soon after my birth, and my father was murdered seven or eight years ago; he was thrown into the canal, and the murderer was never sought after, as there was no talk about the death, and therefore no inquiry" (Ibid. No. 195: p. 472, l. 38).—Walter Cossar, fifteen years old, coal-putter, Dalkeith Collieries, Mid-Lothian: "Could go to night-school, but am aye that wearied that am never fit to gang" (Ibid. No. 34: p. 443, l. 11).—Agnes Kerr, fifteen years old, coal-bearer, Loanhead Colliery, Mid-Lothian: "It is sore crushing work: many lassies cry as

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they bring up their burthens. I canna say that I like the work well; for I am obliged to do it: it is horse-work" (Ibid. No. 65: p. 448, l. 57).—Margaret Drylie, sixteen years old, putter, Elgin Colliery, Fifeshire: "The work is sore straining; was laid by for three months short time since with pains in the limbs, caused by overwork" (Ibid. No. 347: p. 498, l. 45).—Mary Morgan, sixteen years old, putter, Hulheath Colliery, Fifeshire: "As the road is long and the brac awful steep, the sweat drops off like streams of water. The roads are 600 yards and many 900 yards long, and we have to stoop very much. Been idle sometimes with pains in limbs for day or two" (Ibid. No. 359: p. 500, l. 51).—Janet Neilson, sixteen years of age, putter: "Was at service, but left her place as father persuaded her to go below; much prefers service, only suppose father needs my earnings. The work is very, very sair" (Ibid. No. 397: p. 506, l. 32).—Margaret Hipps, seventeen years old, putter, Stoney Rigg Colliery, Stirlingshire: "It is sad sweating and sore fatiguing work, and frequently maims the women" (Ibid. No. 233: p. 479, l. 57).—Agnes Phinn, seventeen years old, coal-bearer, Edmonstone Colliery, Mid-Lothian: "The work is most exhausting; were it not for the sake of cleanliness, I should not change my clothes. I seldom gang out, as the work is gai fair slavery" (Ibid. No. 20: p. 440, l. 21).—Edward Bennett, seventeen years old, coal-hewer, Edmonstone Colliery, Mid-Lothian: "Coal-carrying knocks the lassies all out of joints" (Ibid. No. 22: p. 440, l. 42).—Agnes Johnson, aged seventeen years, road-redder, New Craighall Colliery, Mid-Lothian: "Assists in redding the road in the Tunnel Pit, and works 12 hours. It is very sore work, but I prefer it, as I work on the master's account, and get 14*d.* a-day. When I work with father he keeps me 15 or 16 hours at coal-carrying, which I hate, as it last year twisted my ankles out of place, and I was idle near 12 months" (Ibid. No. 77: p. 451, l. 19).

John Duncan, fifty-seven years old, coal-hewer, Pencaitland Colliery, East Lothian: "It must be admitted that Children are sadly overwrought; have been sorry always when two of my own wrought hard, still I had need of their help, although not nine years of age" (Ibid. No. 152: p. 464, l. 39).—Walter Kerr, collier, aged sixty-two, Tranent Colliery: "Women, in order to get home early, carry too heavy weights. I know many who have filled tubs of 5 cwt. in two burdens, and brought them 200 fathoms" (Ibid. No. 175: p. 468, l. 3).—Mr. John Thompson, mining oversman, Tranent Colliery: "Coal-work at best is of an o'er-sair kind, and few lads can acquire the knowledge of hewing, or have good strength to put, till fourteen years of age, and even then it depends on their physical strength. Colliers frequently exhaust themselves and Children; if regular they would not need

the assistance of such quantities of infant labour" (Ibid. No. 176 : a p. 468, l. 19).

South Wales.—Witnesses in this district also dwell much upon ^o the fatigue of their occupations.—^s

Solomon Hancock, aged ten, collier, Rock Colliery, Bedwelty, Moumouthshire: "Thinks it is very hard work" (Franks, Evidence, No. 245 : App. Part II., p. 542, l. 4).—John Fuge, aged eleven, pump-boy, Llantwryarde: "The work is very fatiguing and requires sixteen hours' rest" (Ibid. No. 73 : p. 517, l. 41).—Joseph and John Neath, twins, aged eleven, Gilvach Vargoed Colliery: "Work very hard indeed; when we rest a little we fall asleep" (Ibid. No. 184 : p. 533, l. 5).—Moses Moon, aged eleven: "It is sad, sloppy, hard work" (Ibid. No. 292 : p. 548, l. 63).—Henrietta Frankland, eleven years old, drammer: "When well I draw the drams [carts], which contain 4 to 5 cwt. of coal, from the heads to the main road; I make 48 to 50 journeys; sister, who is two years older, works also at dramming; the work is very hard, and the long hours before the pay-day fatigue us much" (Ibid. No. 18 : p. 505, l. 48).—John Fuge, aged eleven: "I am so very tired at times that I hardly care about eating" (Ibid. No. 67 : p. 517, l. 46).—William Davis, aged twelve, collier: "The work is very hard, and I am very fatigued by it" (Ibid. No. 183 : p. 532, l. 60).—William Locklas, twelve years old: "Find it very hard work, as the crawling is very fatiguing" (Ibid. No. 438 : p. 577, l. 22).—William Williams, aged thirteen, Plas Level Colliery: "Work is very hard; when I first went down used to fall asleep; can't fall asleep now, am kept too close at it" (Ibid. No. 176 : p. 532, l. 14).—Joseph Roberts, aged thirteen, collier, Court y Bella and Mamwhale Collieries: "Feels very tired; the work is very hard" (Ibid. No. 230 : p. 539, l. 16).—William Hopkin, aged fourteen, pumper, Llantwitfardye: "The work is very hard; I have no time to rest" (Ibid. No. 76 : p. 518, l. 7).—Elias Jones, aged fourteen, carter: "It is very hard work indeed, it is too hard for such lads as we, for we work like little horses" (Ibid. No. 290 : p. 548, l. 48).—William Hopkins, aged fourteen, pumper: "The work is very hard; have no time to rest when below, as the water rises very fast, which makes me dislike the work very much, as there is no cessation; it is very wet, although I stand on a stair" (Ibid. No. 76 : p. 518, l. 7).—James Bentley, father, Risca Colliery, parish of Machin: "The boys' work in this colliery is extremely hard and very exhausting" (Ibid. No. 293 : p. 549, l. 9).—Samuel Jones, cashier and clerk, Waterloo Colliery: "The work is fatiguing for young boys, but the masters have no control over the colliers as to whom they shall take to assist them, and when work

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is dull the fathers carry the boys below when four or five years old" (Ibid. No. 207 : p. 536, l. 30).

Forest of Dean.—Instances of fatigue to a destructive excess are mentioned in this coal-field also.—

Mr. Thomas Batten, surgeon, Coleford : " Sometimes has known cases of nervous relaxation from an exhaustion of strength in young boys. Had one case of epilepsy in a boy about thirteen, brought on by too much exertion of the muscles and whole frame ; another boy, in the Parkend pits, died of *hemorrhagia purpurea* (a suffusion of blood under the cuticle) from the same cause. This boy was not more than seven years of age" (Waring, Evidence, No. 36 : App. Pt. II., p. 24, l. 19).—Josiah Marfell, underground manager, Strip-and-at-it Pit : " Thinks some of the boys overwork themselves in their anxiety to earn more money, or to do their work in a shorter time. When he was a boy between fourteen and eighteen, he often hodded eight tons in a short day up an ascent, and could hardly move when he got home. Thinks some of the men do, sometimes, put upon the boys rather too much" (Ibid. No. 46 : p. 29, l. 39).

2.—*Extraordinary Muscular Development.*

Extraor-
dinary
Muscular
Development.

One of the most remarkable of the effects produced by colliery labour is an extraordinary development of the muscular system, especially of the muscles about the shoulders, chest, arms, and legs.

South
Staffordshire,
Shropshire,
Warwick-
shire, and
Leicester-
shire.

Yorkshire.

Halifax.

The fine muscular development of the Children, Young Persons, and Adults in the South Staffordshire, Shropshire, Warwickshire, and Leicestershire districts, and more especially in the two latter, has been already fully described. And a very extraordinary development of some of the muscles of the body has been observed in other districts. In the West Riding of Yorkshire it is stated " that there is in all cases a strong development of the muscles on each side of the spinal column" (Symons, Report, s. 201 : App. Pt. I., p. 193). And the Sub-Commissioner for the Halifax district states " that the muscles of the Children are extraordinarily firm and prominent, especially those of the shoulders, arms, and legs" (Scriven, Report, s. 49 : App. Pt. II., p. 65).

The latter was so struck with this extraordinary muscular development, and with some other peculiarities in the external conformation of the hurriers, particularly those in the thin-seam pits,

that he measured 220 of these Children and Young Persons, with a view of comparing them with an equal number of persons of the same ages employed in factories, in the potteries of Staffordshire, and in agricultural labour; and in order to obtain an expression for the differences thus ascertained in these several classes, he calls the Children and Young Persons exhibiting extraordinary muscular development "very muscular;" those exhibiting decided muscular development, "muscular;" those exhibiting only an ordinary degree of muscular development, "at par;" and those exhibiting a less degree of muscular development than common, "below par." Now, on referring to the tables exhibiting the results, it appears that out of 124 Children and Young Persons in the Low Moor Collieries there are 56 classed as "very muscular;" 40 as "muscular;" 27 "at par;" and only one "below par." On the other hand, out of 150 Children and Young Persons employed in factories, there is not one classed as "very muscular," only 13 are classed as "muscular," 87 are classed "at par," and 50 "below par;" while in the potteries, out of 150 Children and Young Persons not one is classed as "very muscular," not one even as "muscular," 44 are classed "at par," and 106 "below par."

The Sub-Commissioner for Lancashire reports:—"Amongst the Children and Young Persons I remarked that some of the muscles were developed to a degree amounting to deformity; for example, the muscles of the back and loins stood from the body and appeared almost like a rope passing under the skin." But in the same paragraph he states that he was struck with the thin and gaunt appearance of the adults, and that their muscular development did not appear as great as might be anticipated from the laborious nature of their employment (Kennedy, Report, s. 297: App. Pt. II., p. 188). Mr. Fletcher also states that "the most remarkable personal characteristic of the colliery boys in the neighbourhood of Oldham is their great muscular development about the shoulders and chest" (Fletcher, Report, s. 59: App. Pt. II., p. 832).

The collier population of South Durham is represented as a strong and healthy race, possessing great muscular development and power. And of the great muscular development of the Children employed in the coal mines of Cumberland, among many others, are noticed the following instances:—Benjamin Atkinson,

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Oldham

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Durham*

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Coal and Iron Mines.
Extraordinary Muscular Development.
 aged twelve years and three months: "Measures 4 feet 4½ inches; the spinal column is sunk inwards, the muscles much developed and the breast likewise."—John Holmes, aged eleven years and three months: "Measures 4 feet 4½ inches; immense development of muscle on each side the spine, the whole way from the top to the bottom of the back" (Symons, Evidence, No. 321: App. Pt. I., p. 308, l. 37).

3.—*Stunted Growth.*

Stunted Growth.
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With this great muscular development there is commonly a proportionate diminution of stature. All classes of witnesses state that the colliers as a body, Children, Young Persons, and Adults, are stunted in growth. There are only two exceptions to this in Great Britain, namely, Warwickshire and Leicestershire. It is to be inferred from the statements of the Sub-Commissioner for Ireland that that country forms the third exception for the United Kingdom. Of the uniformity of the statements as to the small stature and the stunted growth of colliers in all other districts the following may be regarded as examples:—

Shropshire. In Shropshire the miners as a body are of small stature: this is abundantly obvious even to a casual observer, and there are many instances of men never exceeding the size of boys (Dr. Mitchell, Report, s. 314: App. Pt. I., p. 39). Andrew Blake, M.D.,
Derbyshire. states of the colliers in Derbyshire, that he has observed that many of them are not so tall as their neighbours in other employments; this, in a degree, he considers is owing to their being worked too young" (Fellows, Evidence, No. 10: App. Pt. II., p. 266, l. 10). In the West Riding of Yorkshire, also, there is in stature an "appreciable difference in colliers' Children, manifest at all ages after they have been three years constantly in the pits: there is little malformation, but as Mr. Eliss, a surgeon constantly attending them, admits, they are somewhat stunted in growth, and expanded in width" (Symons, Report, s. 200: App. Pt. I., p. 193).

Mr. Henry Hemingway, surgeon, Dewsbury: "I am quite sure that the rule is that children in coal-pits are of a lower stature than others" (Symons, Evidence, No. 221: App. Pt. I., p. 282, l. 47).—Mr. Thomas Rayner, surgeon, Birstall: "I account for the stunted growth from the stooping position, which

makes them grow laterally, and prevents the cartilaginous substance from expanding" (Ibid. No. 268: p. 292, l. 52).—Henry Moorhouse, surgeon, Huddersfield: "I may state, from my own personal examination of a number of them, that they are much less in stature in proportion to their ages than those working in mills" (Ibid. No. 273: p. 293, l. 49).—Mr. Jos. Ellison, Birstall: "The employment of the children decidedly stunts their growth" (Ibid. No. 249: p. 288, l. 8).

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Mr. Symons, in Appendix to p. 212 of his Report, has given in detail the names, ages, and measurement, both in stature and in girth of breast, of a great number of farm and colliery Children of both sexes respectively. By taking the first ten collier boys, and the first ten farm boys, of ages between twelve and fourteen, we find that the former measured in the aggregate 44 feet 6 inches in height, and 274½ inches round the breast; while the farm boys measured 47 feet in height, and 272 inches round the breast. By taking the ten first collier girls and farm girls, respectively, between the ages of fourteen and seventeen, we find that the ten collier girls measure 46 feet 4 inches in height, and 293½ inches round the breast; whilst the ten farm girls measure 50 feet 5 inches in height, and 297 inches round the breast; so that in the girls there is a difference in the height of those employed in farms compared with those in collieries of eight and a half per cent. in favour of the former; while between the colliery and farm boys of a somewhat younger age, and before any long period had been spent in the collieries, the difference appears to be five and a half per cent. in favour of the farm Children.

In like manner, of 60 Children employed as hurriers in the neighbourhood of Halifax, at the average ages of ten years and nine months, Mr. Scriven states that the average measurement in height was 3 feet 11¾ inches, and in circumference 2 feet 3 inches; while of 51 Children of the same age employed in farms, the measurement in height was 4 feet 3 inches, the circumference being the same in both, namely, 2 feet 3 inches. In like manner, of 50 Young Persons of the average of fourteen years and eleven months, the measurement in height was 4 feet 5 inches, and in circumference 2 feet 3 inches; while of 49 Young Persons employed in farms, of the average age of fifteen years and six months, the measurement in height was 4 feet 10¼ inches, and in circum-

Halif

and Iron Mines. ference 2 feet 3 inches, being a difference of nearly 6 inches in height in favour of the agricultural labourers.

Stunted Ironw.
Bradford. In the district of Bradford and Leeds there is "in stature an appreciable difference, from about the age at which the Children begin to work, between Children employed in mines and Children of the same age and station in the same neighbourhood not so employed; and this shortness of stature is generally, though to a less degree, visible in the adult" (Wood, Report, s. 36: App. Pt. II., p. H 7—Also Evidence, Nos. 60, 75, 76).

cashire. In Lancashire the Sub-Commissioner reports that "it appeared to him that the average of the colliers are considerably shorter in stature than the agricultural labourers" (Kennedy, Report, s. 296: App. Pt. II., p. 188). The evidence collected by the other gentlemen in this district is to the same effect. Mr. Pearson, surgeon to the Dispensary, Wigan, states, with regard to the physical condition of the Children and Young Persons employed in coal-mining, as compared with that of Children in other employments, that they are smaller, and have a stunted appearance, which he attributes to their being employed too early in life (Ibid. s. 304: p. 188). And Mr. Richard Ashton, relieving officer of the Blackburn district, describes the colliers as "a low race, and their appearance is rather decrepit" (Austin, Evidence, No. 1: App. Pt. II., p. 811, l. 12). See also the remarks by Mr. Fletcher on the vicinity of Oldham, App. Pt. II., s. 59, p. 832.

Oldham. "Though some remarkable exceptions have been seen in the counties of Warwick and Leicester, the colliers, as a race of men, in most districts, and in Durham amongst the rest, are not of large stature" (Mitchell, Report, s. 214: App. Pt. I. p. 143).—George Canney, medical practitioner, Bishop Auckland, states that "they are less in weight and bulk than the generality of men" (Mitchell, Evidence, No. 97: App., Pt. I., p. 154, l. 19).

Of the collier boys of Durham and Northumberland the Sub-Commissioner reports that an inspection of more than a thousand of these boys convinced him that, "as a class (with many individual exceptions), their stature must be considered as diminutive" (Leifchild, Report, s. 72: App. Pt. I., p. 525).—Mr. Nicholas Wood, viewer of Killingworth, &c., states, that "there is a very general diminution of stature amongst pitmen"

(Leifchild, Evidence, No. 97: App. Pt. I., p. 587, l. 39).—Mr. Heath, of Newcastle, surgeon to Killingworth, Gosforth, and Coxlodge Collieries, "Thinks the confinement of Children for twelve hours in a pit is not consistent with ordinary health; the stature is rather diminished, and there is an absence of colour; they are shortened in stature" (Ibid. No. 497: p. 665, l. 7).—And J. Brown, M.D., Sunderland, states that "They are generally stunted in stature, thin, and swarthy" (Ibid. No. 504: p. 672, l. 22).

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Durham*

Of the collier population in Cumberland it is stated that "They are in appearance quite as stunted in growth, and present much the same physical phenomena as those of Yorkshire; comparing, of course, those following similar branches of the work" (Symons, Report, s. 22: App. Pt. I., p. 302).—Thomas Mitchell, surgeon, Whitehaven, says, "Their stature is partially decreased" (Symons, Evidence, No. 312: App. Pt. I. p. 305, l. 59).

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Of the deteriorated physical condition of the collier population in the East of Scotland, as shown among other indications by diminished stature, Dr. S. Scott Alison states that "Many of the infants in a collier community are thin, skinny, and wasted, and indicate, by their contracted features and sickly dirty-white or faint-yellowish aspect, their early participation in a deteriorated physical condition. From the age of infancy up to the seventh or eighth year, much sickliness and general imperfection of physical development is observable. The physical condition of the boys and girls engaged in the collieries is much inferior to that of Children of the same years engaged in farming operations, in most trades, or who remain at home unemployed. These Children are, upon the whole, prejudicially affected to a material extent in their growth and development; many of them are short for their years" (Franks, Report, App. A, No. 2: App. Pt. I., p. 410, 411).

*East of
Scotland*

In North Wales Mr. Samuel Cunnah, manager of the Morton Colliery, Ruabon, states that "He considers early work bad for Children, because he thinks it stops their growth" (H. H. Jones, Evidence, No. 44: App. Pt. II., p. 389, l. 61).

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In South Wales "the testimony of medical gentlemen, and of managers and overseers in various works, in which large numbers of Children as well as adults are employed, proves that the physical health and strength of Children and Young Persons is dete-

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riorated by their employment at the early ages and in the works before enumerated" (Franks, Report, s. 85: App. Pt. II., p. 485).

—Mr. Jonathan Isaacs, agent of the Top Hill Colliery:—"I have noticed that the Children of miners, who are sent to work, do not grow as they ought to do; they get pale in their looks, are weak in their limbs, and any one can distinguish a collier's child from the children of other working people" (Franks, Evidence, No. 144: App. Pt. II., p. 528, l. 4).—Mr. P. Kirkhouse, oversman to the Cyfarthfa Collieries and Ironstone Mines, on this point observes—"The infantine ages at which Children are employed cranks [stunts] their growth and injures their constitution" (Ibid. No. 2: p. 503, l. 21).—John Russell, surgeon to the Dowlais Iron Works: "In stature I believe a difference to exist in the male youth from twelve to sixteen employed in the mines and collieries, compared with those engaged in other work, the former being somewhat stunted; and this difference (under some form or other) seems still perceptible in the adult miners and colliers" (R. W. Jones, Evidence, No. 102: App. Pt. II., p. 641, l. 28).—Mr. Abraham Rowlands, surgeon to the Nantyglo and Beaufort Works: "The stature of the Children working underground is generally small, especially those who begin to work very young; although in some cases it does not affect the growth at all" (Ibid. No. 47: p. 621, l. 36).

*Forest of
Dean.*

In the Forest of Dean "the colliers who have been habituated, from childhood, to work in pits where the veins of coal are thin, and the workings consequently contracted, have certainly a remarkably stunted appearance, and the boys are commonly of low stature for their respective ages" (Waring, Report, s. 55: App. Pt. II., p. 5).—Mr. Josiah Marfell, agent: "Thinks the colliers and miners, generally, would be taller and better grown men if they had not done so much hard work when young. Thinks the boys in these narrow workings are much stunted in their growth." The Sub-Commissioner adds: "I inquired of a man near the spot, who had a boy in the work, whether he thought the employment injured them; and he replied, in no other way than hindering their growth, which was not equal to that of other boys who work above ground, or in more roomy pits" (Waring, Evidence, No. 46: App. Pt. II., p. 29, l. 44, 55). In South Gloucestershire "the same stunted character of growth is remark-

able in those employed at the 'low delf,' or narrow-seam collieries, ^{Coal an} here as in the Forest of Dean" (Waring, Report, s. 87: App. ^{Min.} — Pt. II., p. 38).

4.—*Crippled Gait.*

A third result frequently takes place from employment in the ^{Cripple} coal mines, namely a crippled gait, often connected with positive deformity. This result is of course the most frequent, and in the greatest degree, in those districts in which the working of the mines is carried on under circumstances the least favourable to health, and is therefore little perceptible, or at least little noted, in Warwickshire and Leicestershire, while it is sufficiently apparent in the Staffordshire and Shropshire districts, and forces itself on the attention in the districts of Derbyshire, Yorkshire, Lancashire, and Scotland. In Derbyshire the Children who have ^{Derbysh} worked in the collieries from a very early age are stated to be bow-legged (Fellows, Report, s. 45: App. Pt. II., p. 255).

In the West Riding of Yorkshire, after "they are turned forty-five or fifty they walk home from their work almost like cripples, stiffly stalking along, often leaning on sticks, bearing the visible evidences in their frame and gait of overstrained muscles and overtaxed strength. Where the lowness of the gates induces a very bent posture, I have observed an inward curvature of the spine; and chicken-breasted Children are very common among those who work in low thin coal-mines" (Symons, Report, s. 110: App. Pt. I., p. 181). ^{Yorks}

Mr. Uriah Bradbury, surgeon, Mirfield: "Their knees never stand straight like other people's" (Symons, Evidence, No. 199: App. Pt. I., p. 279, l. 3).—Mr. Henry Flemingway, surgeon, Dewsbury: "May be distinguished among crowds of people by the bending of the spinal column" (Ibid. No. 221: p. 282, l. 46).—Mr. William Sharp, surgeon, Bradford: "There are occasionally cases of deformity" (Wood, Evidence, No. 60: App. Pt. II., p. h 27, l. 46).

In the Lancashire district, John Bagley, about thirty-nine years ^{Lancash} of age, collier, Mr. Lancaster's, Patricroft, states, "that the women drawing in pits are generally crooked. Can tell any woman who has been in the pits; they are rarely if ever so straight as other women that stop above ground" (Kennedy, Evidence, No. 30:

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App. Pt. II., p. 218, l. 6).—Mr. William Gualter, surgeon, of Over Darwen, says, "Has practised as a surgeon 24 years in this neighbourhood. Those who work in collieries at an early age, when they arrive at maturity are generally not so robust as those who work elsewhere: they are frequently crooked (not distorted), bow-legged, and stooping" (Austin, Evidence, No. 7: App. Pt. II., p. 812, l. 60).—Betty Duxberry, a woman having Children in the pits, asserts that "colliers are all crooked and short-legged, not like other men who work above ground; but there were always colliers and always will be. This young boy turns his feet out and his knees together; drawing puts them out of shape" (Ibid. No. 17: p. 815, l. 53).

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Evidence collected in Durham and Northumberland shows that the underground labour produces similar effects in that district:—

Mr. Nicholas Wood, viewer of Killingworth, Hetton, and other collieries: "The children are perhaps a little ill-formed, and the majority of them pale and not robust. Men working in low seams are bent double and bow-legged very often" (Leifchild, Evidence, No. 97: App. Pt. I., p. 587, l. 32).—J. Brown, M. D. and J. P., Sunderland: "They labour more frequently than other classes of the community under deformity of the lower limbs, especially that variety of it described as being 'in-kneed.' This I should ascribe to yielding of the ligaments owing to long standing in the mines in a curved and awkward position" (Ibid. No. 504: p. 672, l. 22). Mr. Thomas Greenshaw, surgeon, Walker Colliery: "Their persons are apt to be somewhat bent and cramped. As they advance in life their knees and back frequently exhibit a curved appearance from constant bending at their work" (Ibid. No. 498: p. 665, l. 50).—Mr. W. Morrison, surgeon of Pelaw House, Chester-le-Street, Countess of Durham's Collieries: "The 'outward man' distinguishes a pitman from every other operative. His stature is diminutive, his figure disproportionate and misshapen; his legs being much bowed; his chest protruding (the thoracic region being unequally developed). His countenance is not less striking than his figure; his cheeks being generally hollow, his brow overhanging, his cheek bones high, his forehead low and retreating; nor is his appearance healthful; his habit is tainted with scrofula. I have seen agricultural labourers, blacksmiths, carpenters, and even those among the wan and distressed stocking weavers of Nottinghamshire, to whom the term 'jolly' might not be inaptly applied, but I never saw a 'jolly-looking' pitman. As the germ of this physical degeneration may be formed in the youthful days of

the pitman, it is desirable to look for its cause" (Ibid. No. 496 : *Coal and Mine* p. 662, l. 62).

Of the colliers in the East of Scotland, Dr. Scott Alison says : "Several become crooked, and the subjects of spinal curvature. Diseases of the spinal column are very common at all ages among individuals employed in collieries. I have attended many persons labouring under the most serious of the diseases which are incident to the spine. Few middle-aged or old colliers are to be seen without curvature of the spine more or less extensive, the result of the unnatural position in which their bodies are retained for hours together when at work. This affection is indicated by general crookedness of the trunk, by stooping, and in general by one shoulder being higher than the other."

Of girls and women employed in the collieries of this district, he says : "Several of them are distorted in the spine and pelvis, and suffer considerable difficulty in consequence at the period of parturition ; but where this has not arisen from direct violence, it has been induced by general debility and bad habit of body, induced in infancy or childhood" (Franks, Evidence : App. Pt. I., p. 417, 412).

Similar evidence is given by the medical men in regard to the South Wales district as to the effect of employment in the coal mines in rendering the Children weak in their limbs and crippled in their gait, "so that any one can distinguish a collier's Child from the Children of other working people" (Franks, Report, s. 63 *et seq.* : App. Pt. II., p. 484).

5.—*Irritation of the Head, Back, &c.*

There are certain minor evils connected with employment in the worst classes of coal mines, which, though not perhaps very serious, are nevertheless the sources of much suffering, such as irritation of the head, feet, back, and skin, together with occasional strains. "The upper parts of their head are always denuded of hair ; their scalps are also thickened and inflamed, sometimes taking on the appearance of *tinea capitis*, from the pressure and friction which they undergo in the act of pushing the corves forward, although they are mostly defended by a padded cap" (Scriven, Report, s. 83 : App. Pt. II., p. 72). "It is no uncommon thing to see hurriers bald, owing to pushin

Crippled
East Scotland

Irritation of the Head, Back, &c.

the corves up steep board-gates with their heads" (Symons; Report, s. 96: App. Pt. I., p. 178).

Mr. Alexander Muir, surgeon: "Are there any peculiar diseases to which colliers are subject?—No, excepting that the hurriers are occasionally affected by a formation of matter upon the forehead, in consequence of their pushing the waggons with the head. To what extent is such formation of matter injurious to the general health?—It produces considerable local irritation. When the matter is allowed to escape it heals as perfectly as before. Do you conceive this use of the head to be a necessary or unnecessary part of the occupation?—I should think not necessary. Does it arise from any deficiency of strength, the head being used to supply the place of the arms?—I should think it does" (Wood, Evidence, No. 76: App. Pt. II., p. h 32, l. 18).—David Swallow, collier, East Moor: "The hair is very often worn off bald, and the part is swollen so that sometimes it is like a bulb filled with spongy matter, so very bad after they have done their day's work, that they cannot bear it touching" (Symons, Evidence, No. 197: App. Pt. I., p. 277, l. 68).—William Holt: "Some thrutched with their head, because they cannot thrutch enough with their hands alone. Thrutching with the head makes a gathering in the head, and makes them very ill" (Austin, Evidence, No. 9: App. Pt. II., p. 813, l. 40).

"In running continually over uneven ground without shoes or stockings, particles of coal, dirt, and stone get between the toes, and are prolific sources of irritation and lameness, of which they often complain; the skin covering the balls of the toes and heels becomes thickened and horny, occasioning a good deal of pain and pustular gathering" (Scriven, Report, s. 82: App. Pt. II. p. 72).

James Mitchell: "I have hurt my feet often; sometimes the coals cut them and they run matter; and the corves run o'er 'em when I stand 'agate; I an't not always aware o' their coming" (Scriven, Evidence, No. 2: App. Pt. II., p. 101, l. 33).—Selina Ambler: "I many times hurt my feet and legs with the coals and scale in gate; sometimes we run corve over them; my feet have many a time been blooded" (Ibid. No. 79: p. 124, l. 28).—See also Nos. 12, 13, 18, 25.—Mrs. Carr: "Has known many foals laid off with sore backs, especially last year and the year before, when the putting was said to be very heavy in the Flatworth Pit. Some foals had to lie off a day or two, to get their backs healed before they could go to work again" (Leifchild, Evidence, No. 86: App. Pt. I., p. 583, l. 27).—

William Jakes: "His back is often skinned; is now sore and all red, from holding on or back against the corf" (Ibid. No. 201: p. 610, l. 52).—George Faction: "In some places he bends quite double, and rubs his back so as to bring the skin off, and whiles to make it bleed, and whiles he is off work from these things" (Ibid. No. 267: p. 623, l. 11.).—Mr. James Probert, surgeon: "Chronic pain of the back is a very common complaint amongst colliers, arising from overstraining the tendinous muscles, and it is the source of much discomfort to the colliers" (Franks, Evidence, No. 31: App. Pt. II., p. 510, l. 49).—Mr. William Dodd, surgeon: "As to the 'boils,' when a fresh man comes to the colliery he generally becomes affected by these 'boils,' most probably from the heat in the first instance, and subsequently they are aggravated by the salt water" (Leifchild, Evidence, No. 385: App. Pt. I., p. 645, l. 35).—James Johnson: "Sometimes, when amongst the salt water, the heat, &c., brings out boils about the size of a hen's egg upon him, about his legs and thighs, and under his arms sometimes. A vast of the boys, men and all, have these boils at times. These boils, perhaps, last a fortnight before they get ripe, and then they burst. A great white thing follows and is called a 'tanner'" (Ibid. No. 375: p. 644, l. 48).—Dr. Adams, Glasgow: "An eruption on the skin is very prevalent among colliers" (Tancred, Evidence, No. 9: App. Pt. I., p. 361, l. 45).—William Mackenzie: "Had about 20 boils on his back at one time, about two years since. These lasted about three months. He was kept off work about a week. If he touched them against anything they were like death to him. But few of the boys have so many at a time; many of the boys get two or three at a time. The boys take physic to bring them all out; then they get rid of them for some time. If the salt water falls upon any part of them that is scotched it burns into the flesh like; it is like red rust. It almost blinds the boys if it gets into their eyes" (Leifchild, Evidence, No. 376: App. Pt. I., p. 644, l. 54).

*Coal and /
Mines.*

*Irritation
the Heat
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6.—Diseases.

The evidence shows that employment in coal mines, as now too frequently pursued, produces certain positive diseases, partly the direct result of excessive muscular exertion, and partly the result of such exertion combined with the unhealthy state of the place of work. Loss of appetite, pain in the stomach, nausea and vomiting, are stated in the evidence to be, in some districts, felt by great numbers of persons employed in the labour of the coal mines. Many of the witnesses make grievous complaints of their

Diseases

Coal and Iron Mines. suffering from this cause. In the Durham and Northumberland Coal Field, for instance :—

Diseases.

urham and Northumberland.

Michael Mikings: "Never has a mind for his victuals; never feels himself hungry."—John Charlton: "Thinks the stythe makes him bad so that he cannot eat his bait, and very often brings it all home with him again, or eats very little of it."—Michael Richardson: "He never has much appetite; and the dust often blacks his victuals. Is always dry and thirsty."—Wilson Beaney: "Has thrown up his victuals often when he came home; thinks the bad air made him do this."—John Thompson: "Very often throws up his food."—Thomas Newton: "Threw up his victuals last night when he came home. Never does so down in the pit, but often does when he comes home."—Moses Clerk: "Throws up his victuals nearly every day at home and down the pit."—Thomas Martin: "Many times feels sick, and feels headach, and throws up his food. Was well before he went down in the pit."—Thomas Fawcett: "Many a night falls sick; and he many times throws up his meat when he is in bed. Sometimes feels bad and sick in the morning."—George Alder: "Has been unwell of late with the hard work. Has felt very sick and very weak all this last week. (Looks very pale and unwell.)"—John Charlton: "Often obliged to give over. Has been off five days in the last month. Each of these days was down in the pit and obliged to come up again."—John Laverick and others: "Many times they fell sick down the pit. Sometimes they have the heart-burn; sometimes force up their meat again. Some boys are off a week from being sick; and occasionally they feel pains."—Six Trappers: "Sometimes they feel sick upon going to work in the morning. Sometimes bring up their breakfast from their stomachs again. Different boys at different times do this."—George Short: "It is bad air where he is, and makes him bad; makes small spots come out upon him [small pimples], which he thinks is from the air, and he takes physic to stop them. His head works very often, and he feels sickish sometimes."—Nichol Hudderson: "The pit makes him sick. Has been very bad in his health ever since he went down the pit. Was very healthy before. The heat makes him sick. The sulphur rising up the shaft as he goes down makes his head work. Often so sick that he cannot eat when he gets up, at least he cannot eat very much. About half a year since a boy named John Huggins was very sick down the pit, and wanted to come up, but the keeper would not let him ride [come up], and he died of a fever one week afterwards. [The father of this lad and his brother fully corroborate this statement, and the father says the doctor told him if he (the boy) had not been kept in the pit, he might have been, perhaps, saved. This boy never had anything

the matter with him before he went down into the pit]" (Leif-child, Evidence, Nos. 156, 169, 270, 83, 110, 142, 143, 374, 194, 364, 135, 100, 101: App. Pt. I., p. 582 *et seq.*)—See also the statements of Witnesses Nos. 315, 327, 351, 359, 360, 361, 362, 363, 365, 377, 381, 382, 384, 430, 434, 454, 455, 457, 464, 465, 466.)

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Similar statements are made by all classes of witnesses in some of the other districts. Thus in Shropshire,—

A surgeon who did not wish his name to be published: "They are subject to hypertrophy of the heart, no doubt laying the foundation of such disease at the early age of from eight to thirteen years" (Mitchell, Evidence, No. 45: App. Pt. I., p. 81, l. 16).—Mr. Michael Thomas Sadler, surgeon, Barnsley: "I have found diseases of the heart in adult colliers, which it struck me arose from violent exertion. I know of no trade about here where the work is harder" (Symons, Evidence, No. 139: App. Pt. I., p. 261, l. 36).—Mr. Pearson, surgeon to the Dispensary, Wigan: "They are very subject to diseases of the heart" (Kennedy, Report, s. 304: App. Pt. II. p. 189).—Dr. William Thompson, Edinburgh: "Workers in coal-mines are exceedingly liable to suffer from irregular action, and ultimately organic disease of the heart" (Franks, Evidence: App. Pt. I., p. 409).—Scott Alison, M.D., East Lothian: "I found diseases of the heart very common among colliers at all ages from boyhood up to old age. The most common of them were, inflammation of that organ, and of its covering the pericardium, simple enlargement or hypertrophy, contraction of the auriculo ventricular communications and of the commencement of the aorta. The symptoms were well marked, attended for the most part with increase of the heart's action, the force of its contractions being sensibly augmented, and in many cases, especially those of hypertrophy, much and preternaturally extended over the chest" (Ibid., p. 417).—Mr. Thomas Batten, surgeon, Coleford: "A boy about thirteen years of age in the Parkend Pits died of *hæmorrhagia purpurea* [a suffusion of blood under the cuticle] brought on by too much exertion of the muscles and whole frame" (Waring, Evidence, No. 36: App. Pt. II., p. 24, l. 21).

To this list of diseases arising from great muscular exertion must be added rupture.

Yorkshire

Dr. Favell, Sheffield: "Many of them are ruptured; nor is this by any means uncommon amongst lads—arising, in all probability, from over-exertion" (Symons, Evidence, No. 47: App. Pt. I., p. 236, l. 2).—Mr. Pearson, surgeon to the Dispensary, Wigan: "Colliers are often ruptured, and they often come

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to me for advice" (Kennedy, Report, s. 304: App. Pt. II., p. 189).—Andrew Grey: "Severe ruptures occasioned by lifting coal. Many are ruptured on both sides: I am, and suffer severely, and a vast of men here are also" (Franks, Evidence, No. 147: App. Pt. I., p. 463, l. 61).

But employment in the coal-mines produces another series of diseases incomparably more painful and fatal, partly referable to excessive muscular exertion, and partly to the state of the place of work, that is, to the foul air from imperfect ventilation, and to the wetness from inefficient drainage. Of the diseases of the lungs produced by employment in the coal mines asthma is the most frequent.—

Shropshire. Mr. William Hartell Baylis: "The working of the mines brings on asthma" (Mitchell, Evidence, No. 7: App. Pt. I., p. 65, l. 31).—A surgeon who does not wish his name to be published: "Most colliers at the age of thirty become asthmatic. There are few attain that age without having the respiratory apparatus disordered" (Ibid. No. 45: p. 81, l. 15).—Mr. George Marcy, clerk to the Wellington Union: "Many applications are made from miners for relief on account of sickness, and chiefly from asthmatic complaints, when arrived at an advanced age. At forty, perhaps, the generality suffer much from asthma. Those who have applied have been first to the medical officer, who has confirmed what they said" (Ibid. No. 46: p. 81, l. 44).

Derbyshire. "I met with very few colliers above forty years of age who, if they had not a confirmed asthma, were not suffering from difficult breathing" (Fellows, Report, s. 57: App. Pt. II., p. 256).—Phoebe Gilbert, Watnall, Messrs. Barber and Walker: "She thinks they are much subject to asthma. Her first husband, who died aged 57, was unable to work on that account for seven years" (Fellows, Evidence, No. 105: App. Pt. II., p. 292, l. 46).—William Wardle, collier, forty years of age, Eastwood: "There are some who are asthmatical, and many go double" (Ibid. No. 84: p. 287, l. 40).—Mr. Henry Hemingway, surgeon, Dewsbury: "When Children are working where carbonic acid gas prevails, they are rendered more liable to affections of the brain and of the lungs. This acid prevents the blood from its proper decarbonization when it passes from the heart to the lungs. It does not get properly quit of the carbon" (Symons, Evidence, No. 221: App. Pt. I., p. 282, l. 38).—Mr. Uriah Bradbury, surgeon, Mirfield: "They suffer from asthma" (Ibid. No. 199: p. 278, l. 58).—Mr. J. B. Greenwood, surgeon, Cleckheaton: "The cases which have come before me professionally have been chiefly affections of the chest and asthma, owing to the damp underfoot, and also to the dust which arises from the working of

the coal" (Ibid. No. 200 : p. 279, l. 8).—J. Ibbetson, collier, *Coal and Mines Disease*, aged fifty-three, Birkenshaw : "I have suffered from asthma, and am regularly knocked up. A collier cannot stand the work regularly. He must stop now and then, or he would be mashed up before any time" (Ibid. No. 267 : p. 292, l. 42).

Joseph Barker, collier, aged forty-three, Windybank Pit : "I have a wife and two children; one of them is two-and-twenty years old; he is 'mashed up' [that is, he is asthmatical]; he has been as good a worker as ever worked in a skin" (Scriven, Evidence, No. 14 : App. Pt. II., p. 104, l. 60).—Mr. George Canney, surgeon, Bishop Auckland : "Do the children suffer from early employment in the pits?—Yes, seven and eight is a very early age, and the constitution must suffer in consequence. It is injurious to be kept in one position so long, and in the dark. They go to bed when they come home, and enjoy very little air. I think there is more than the usual proportion of pulmonary affections" (Mitchell, Evidence, No. 97 : App. Pt. I., p. 154, l. 12).—Dr. Headlam, physician, Newcastle : "Diseases of respiration are more common amongst pitmen than others, distinctly referable to the air in which they work. The air contains a great proportion of carbonic acid gas and carbureted hydrogen; these diseases of the respiratory organs arise from the breathing of these gases, principally the carbonic acid gas" (Leischild, Evidence, No. 499 : App. Pt. I., p. 670, l. 11).—Mr. Heath, of Newcastle, surgeon : "More than usually liable to asthma; mostly between thirty and forty years of age. A person always working in the broken would be more liable to asthma. Asthma is of very slow growth, and it is difficult to say when it begins; custom and habit will not diminish the evil effects, but will diminish the sensibility to these evils" (Ibid. No. 497 : p. 665, l. 10-14).—Matthew Blackburn, driver, fifteen years of age, Heaton Colliery : "Has felt shortness of breath. Helps up sometimes, but is bound to drive. Cannot help up sometimes for shortness of breath. His legs often work [ache]; his shoulders work sometimes. Working in a wet place" (Ibid. No. 27 : p. 573, l. 34).

Dr. S. Scott Alison, East Lothian : "Between the twentieth and the thirtieth year many colliers decline in bodily vigour and become more and more spare; the difficulty of breathing progresses, and they find themselves very desirous of some remission of their labour. This period is fruitful in acute diseases, such as fever, inflammation of lungs and pleura, and many other ailments, the product of over-exertion, exposure to cold and wet, violence, insufficient clothing, intemperance, and foul air. For the first few years chronic bronchitis is usually found alone and unaccompanied by disease of the body of the lungs. The patient suffers more or less difficulty of breathing, which is much affected by changes of the weather and by variations in the weight of the atmosphere; he

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coughs frequently, and the expectoration is composed, for the most part, of white frothy and yellowish mucous fluid, occasionally containing blackish particles of carbon, the result of the combustion of the lamp, and also of minute coal-dust. At first, and indeed for several years, the patient, for the most part, does not suffer much in his general health, eating heartily, and retaining his muscular strength little impaired in consequence. The disease is rarely, if ever, entirely cured; and if the collier be not carried off by some other lesion in the mean time, this disease ultimately deprives him of life by a slow and lingering process. The difficulty of breathing increases and becomes more or less permanent, the expectoration becomes very abundant, effusion of water takes place in the chest, the feet swell, and the urine is secreted in small quantity, the general health gradually breaks up, and the patient, after reaching premature old age, slips into the grave at a comparatively early period with perfect willingness on his part, and with no surprise on that of his family and friends" (Franks, Evidence, App. Pt. I., p. 412, 415: Appendix A).—John Duncan, aged fifty-nine, hewer, Pencaitland: "Mining has caused my breath to be affected, and I am, like many more colliers, obliged to hang upon my children for existence. The want of proper ventilation in the pits is the chief cause; no part requires more looking to than East Lothian; the men die off like rotten sheep" (Ibid. No. 150: p. 464, l. 28).—George Hogg, thirty-two years of age, coal-hewer, Pencaitland Colliery: "Unable to labour much now, as am fashed with bad breath: the air below is very bad; until lately no ventilation existed" (Ibid. No. 153: p. 464, l. 46).—See also Witnesses Nos. 4, 36, 53, 131, 152, 155, 175, 275, 277, &c.—"The confined air and dust in which they work is apt to render them asthmatic, as well as to unfit them for labour at an earlier period of life than is the case in other employments" (Tancred, Report, s. 99: App. Pt. I., p. 345).—Dr. Adams, Glasgow: "Amongst colliers bronchitis or asthma is very prevalent amongst the older hands" (Tancred, Evidence, No. 9: App. Pt. I., p. 361, l. 44).

th Wales.

Mr. Peter Williams, surgeon, Holiwell, North Wales: "The chief diseases to which they are liable are those of the bronchiæ. Miners and colliers, by the age of forty, generally become affected by chronic bronchitis, and commonly before the age of sixty fall martyrs to the disease. The workmen are, for the most part, very healthy and hardy, until the symptoms of affections of the bronchial tubes show themselves" (H. H. Jones, Evidence, No. 95: App. Pt. II., p. 407, l. 8).—Jeremiah Bradley, underground agent, Plaskynaston: "The men are apt to get a tightness of breath, and become unfit for the pits, even before sixty" (Ibid. No. 30: p. 383, l. 8).—"Amongst colliers in South Wales the diseases most prevalent are chronic diseases of the respiratory

organs, especially asthma and bronchitis" (Franks, Report, *Coal and Mines Disease* s. 64: App. Pt. II., p. 484).—David Davis, contractor, Gilvachvargoed Colliery, Glamorganshire: "I am of opinion that miners are sooner disabled and off work than other mechanics, for they suffer from shortness of breath long before they leave off work; shortness of breath may be said to commence about from forty to fifty years of age" (Franks, Evidence, No. 178: App. Pt. II., p. 533, l. 32).—Mr. Richard Andrews, overseer, Llancyach, Glamorganshire: "The miners about here are very subject to asthmatic complaints" (Ibid. No. 152: p. 529, l. 7).—Mr. Frederick Evans, clerk and accountant for the Dowlais Collieries, Monmouthshire: "Asthma is a prevalent disease among colliers" (R. W. Jones, Evidence, No. 121: App. Pt. II., p. 646, l. 48).

Mr. David Mushet, Forest of Dean: "The men generally become asthmatic from fifty to fifty-five years of age" (Waring, Evidence, No. 37: App. Pt. II., p. 25, l. 3). "Asthmatic and other bronchial affections are common amongst the more elderly colliers and miners" (Waring, Report, s. 72: App. Pt. II., p. 6).—Mr. W. Brice, clerk, Coal Barton and Vobster Collieries, North Somersetshire: "The work requires the full vigour of a man; and they are 'apt at this place to get asthmatical, from the gas and foul air'" (Stewart, Evidence, No. 7: App. Pt. II., p. 50, l. 49).—James Beacham, coal-breaker, Writhlington, near Radstock: "Many of the miners suffer from 'tight breath'" (Ibid. No. 32: p. 56, l. 31).

Of that disease which is peculiar to colliers, called "black spittle," much evidence is given by many medical witnesses and others:—

Mr. Cooper, surgeon, of Bilston, gives the following account of *Stafford* this malady when it appears in its mildest form: "Frequently it occurs that colliers appear at the offices of medical men complaining of symptoms of general debility, which appear to arise from inhalation of certain gases in the mines (probably an excess of carbonic). These patients present a pallid appearance, are affected with headache (without febrile symptoms) and constriction of the chest, to which may be added dark bronchial expectoration and deficient appetite. Gentle aperients, mild stomachics, and rest from labour above ground, restore them in a week or so, and they are perhaps visited at intervals with a relapse, if the state of the atmosphere or ill ventilation of the mine favour the development of deleterious gas" (Mitchell, Evidence, No. 3: App. Pt. I., p. 62, l. 48).

In other districts this disease assumes a much more formidable character:—

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Dr. Thomson, of Edinburgh, states that "The workmen in coal-mines occasionally die of an affection of the lungs, accompanied with the expectoration of a large quantity of matter of a deep black colour, this kind of expectoration continuing long after they have, from illness or from choice, abandoned their subterranean employment, and the lungs of such persons are found on examination after death to be most deeply impregnated with black matter. This black deposition may occur to a very considerable extent in the lungs of workers in coal mines, without being accompanied with any black expectoration or with any phenomena of active disease, and may come to light only after death has been occasioned by causes of a different nature, as by external injuries" (Franks, Appendix A, No. 1: App. Pt. I., p. 409).

Dr. S. Scott Alison: "Spurious melanosis, or the 'black-spit' of colliers, is a disease of pretty frequent occurrence among the older colliers, and among those men who have been employed in cutting and blasting stone dykes in the collieries. The symptoms are emaciation of the whole body, constant shortness and quickness of breath, occasional stitches in the sides, quick pulse, usually upwards of one hundred in the minute, hacking cough, day and night, attended by a copious expectoration, for the most part perfectly black, and very much the same as thick blacking in colour and consistence, but occasionally yellowish and mucous, or white and frothy; respiration is cavernous in some parts and dull in others; a wheezing noise is heard in the bronchial passages, from the presence of an inordinate quantity of fluid; the muscles of respiration become very prominent, the neck is shortened, the chest being drawn up, the nostrils are dilated, and the countenance is of an anxious aspect. The strength gradually wasting, the collier who has hitherto continued at his employment finds that he is unable to work six days in the week, and goes underground perhaps only two or three days in that time; in the course of time he finds an occasional half-day's employment as much as he can manage, and when only a few weeks' or months' journey from the grave ultimately takes a final leave of his labour. This disease is never cured, and if the unhappy victim of an unwholesome occupation is not hurried off by some more acute disease, or by violence, it invariably ends in the death of the sufferer. Several colliers have died of this disease under my care" (Ibid. Appendix A, No. 2: App. Pt. I., pp. 415, 416).

Dr. Makellar, Pencaitland, East Lothian: "The most serious and fatal disease which I have been called to treat, connected with colliers, is carbonaceous infiltration into the substance of the lungs. It is a disease which has long been overlooked, on account of the unwillingness which formerly existed amongst that class of people to allow examination of the body after death; but of late such a prejudice has in a great measure been removed. From

the nature of Pencaitland coal-works, the seams of coal being thin when compared with other coal-pits, mining operations are carried on with difficulty, and in such a situation there is a deficiency in the supply of atmospheric air, thereby causing difficulty of breathing, and consequently the inhalation of the carbon which the lungs in expiration throw off, and also any carbonaceous substances floating in this impure atmosphere. I consider the pulmonary diseases of coal-miners to be excited chiefly by two causes, viz. first by running stone-mines with the use of gunpowder; and secondly, coal-mining in an atmosphere charged with lamp smoke and the carbon exhaled from the lungs. All who are engaged at coal-pits here are either employed as coal or stone miners, and the peculiar disease to which both parties are liable varies considerably according to the employment" (Ibid. Appendix A, No. 3: p. 422). See also Witnesses Nos. 7, 44, 122, 144, 146. For a full account of this disease see Reports of Drs. Alison, Thomson, Makellar, and Reid, in the Appendix to the Sub-Commissioner's Report for the East of Scotland.

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Dr. Makellar gives the following remarkable evidence as to the efficacy of ventilation in obviating the production of this disease:—

"The only effectual remedy for this disease is a free admission of pure air, and to be so applied as to remove the confined smoke both as to stone-mining and coal-mining, and also the introduction of some other mode of lighting such pits than by oil. I know many coal-pits where there is no *black-spit*, nor was it ever known, and on examination I find that there is and ever has been in them a free circulation of air. For example, the Penston Coal-works, which joins Pencaitland, has ever been free of this disease, but many of the Penston colliers on coming to work at Pencaitland Pit have been seized with, and died of, the disease. Penston has always good air, while it is quite the contrary at Pencaitland" (Ibid. Appendix A, No. 3: App. Pt. I., p. 422).

Other diseases produced by employment in coal mines, less fatal, but scarcely less painful, are rheumatism and inflammation of the joints.

Mr. William Hartell Baylis states that working in the cold and wet often brings on rheumatism. "More suffer from this than from any other complaint" (Mitchell, Evidence, No. 7: App. Pt. I., p. 65, l. 31). Asthma and rheumatism, which are so prevalent in other districts, are very rare in Warwickshire and Leicestershire (Mitchell's Reports *in loco*). But in Derbyshire

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"rheumatism is very general: I believe you will scarcely meet a collier, and ask him what he thinks of the weather, but he will in reply say, 'Why, his back or shoulders have or have not pained him so much as usual' " (Fellows, Report, s. 58: App. Pt. II., p. 256).

Durham.

Mr. George Tweddell, surgeon, Houghton-le-Spring, South Durham, says, in answer to the question—Are the miners much subject to rheumatism?—"Not particularly so. Our mines are dry; but there is one mine which is wet, where the men often complain from rheumatism" (Mitchell, Evidence, No. 99: App. Pt. I., p. 155, l. 8). Similar evidence is given by the medical and other witnesses in all the districts. Wherever the mines are not properly drained, and are therefore wet and cold, the workpeople are invariably afflicted with rheumatism, and with painful diseases of the glands.

Forest of
Dean.

The Sub-Commissioner for the Forest of Dean gives the following account of a painful disease of the joints, common in that district: "The men employed in cutting down the coal are subject to inflammation of the *bursæ*, both in the knees and elbows, from the constant pressure and friction on these joints, in their working postures. Where the seams are several feet thick, they begin by kneeling and cutting away the exterior portion of the base. They proceed, undermining, till they are obliged to lie down on their sides, in order to work beneath the mass, as far as the arm can urge the pick, for the purpose of bringing down a good head of coal. In this last posture the elbow forms a pivot, resting on the ground, on which the arm of the workman oscillates as he plies his sharp pick. It is easy to comprehend how this action, combined with pressure, should affect the delicate cellular membrane of the joint, and bring on the disease indicated. The thin seams of coal are, necessarily, altogether worked in a horizontal posture" (Waring, Report, ss. 63—66: App. Pt. II., pp. 5, 6).

7.—*Premature Old Age and Death.*

Premature
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An employment often pursued under circumstances which bring with them so many and such formidable diseases must prematurely exhaust the strength of ordinary constitutions; and the evidence collected in almost all the districts proves that too often

the collier is a disabled man, with the marks of old age upon him, when other men have scarcely passed beyond their prime.

The evidence shows that in South Staffordshire and Shropshire many colliers are incapable of following their occupation after they are forty years of age; others continue at their work up to fifty, which is stated by several of the witnesses to be about the general average. Mr. Marcy, clerk to the Wellington Union, Salop, states "That about forty the greater part of the colliers may be considered as disabled and regular old men, as much as some are at eighty" (Mitchell, Evidence, No. 46: App. Pt. I., p. 81, l. 47).

Even in Warwickshire and Leicestershire, in which the physical condition of the colliers is better than in any other districts, Mr. Michael Parker, ground-bailiff of the Snibson Collieries, states "That some of the men are knocked up at forty-five and fifty, and that fifty may be the average, which early exhaustion of the physical strength he attributes to the severe labour and the bad air" (Ibid. No. 77: p. 113, l. 6). Mr. Dalby, surgeon of the Union of Ashby-de-la-Zouch, says, "The work in the pit is very laborious, and some are unable for it as early as fifty, others at fifty-five, and some at sixty: I should say the greater part about fifty-five" (Ibid. No. 81: p. 114, l. 22). And Mr. Davenport, clerk of the Union of Ashby-de-la-Zouch, gives a higher average, and says, "That a collier may wear from sixty-five to seventy, while an agricultural labourer may wear from seventy to seventy-five" (Ibid. No. 82: p. 114, l. 61).

Of Derbyshire the Sub-Commissioner reports:—"I have not perceived that look of premature old age, so general amongst colliers, *until they are forty years of age*, excepting in the loaders, who evidently appear so *at twenty-eight or thirty*; and this I think must arise from the hardness of their labour in having such great weights to lift, and breathing a worse atmosphere than any other in the pit" (Fellows, Report, s. 49: App. Pt. II., p. 256). Phœbe Gilbert states: "The loaders are, as the saying is, 'old men before they are young ones'" (Fellows, Evidence, No. 105: p. 292, l. 48). Dr. Blake says: "He has also noticed that when a collier has worked from a Child, and becomes forty, he looks much older than those of the same age above ground" (Ibid. No. 10: p. 266, l. 8).

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Yorkshire.

In Yorkshire "the collier of fifty is usually an aged man; he looks overstrained and stiffened by labour" (Symons, Report, s. 209: App. Pt. I., p. 193). "But whilst both the child and the adult miner appear to enjoy excellent health, and to be remarkably free from disease, it nevertheless appears that their labour, at least that of the adult miner, is, in its general result, and in the extent to which it is pursued, of a character more severe than the constitution is properly able to bear. It is rare that a collier is able to follow his calling beyond the age of from forty to fifty, and then, unless he be fortunate enough to obtain some easier occupation, he sinks into a state of helpless dependence. Better habits with regard to temperance might diminish, but would not remove this evil, and the existence of this fact, in despite of the general healthiness of the collier population, gives rise to the question whether, apart from all considerations of mental and moral improvement, a fatal mistake is not at present committed in employing Children of tender years to the extent that their strength will bear, instead of giving opportunity by short hours of labour for the fuller and more perfect physical development which would better fit them to go through the severe labour of their after-life" (Wood, Report, s. 42: App. Pt. II., p. H 7).

Durham and
Northumber-
land.

In the Coal-fields of North Durham and Northumberland Dr. Elliott states "That premature old age in appearance is common; men of thirty-five or forty years may often be taken for ten years older than they really are" (Leifchild, Evidence, No. 499: App. Pt. I., p. 668, l. 44).—Mr. Thomas Greenhow, surgeon, Walker Colliery, North Durham, says: "They have an aged aspect somewhat early in life" (Ibid. No. 498: p. 665, l. 52).

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Of the effect of employment in the coal mines of the East of Scotland in producing an early and irreparable deterioration of the physical condition, the Sub-Commissioner thus reports:—"In a state of society such as has been described, the condition of the Children may be easily imagined, and its baneful influence on the health cannot well be exaggerated; and I am informed by very competent authorities that six months' labour in the mines is sufficient to effect a very visible change in the physical condition of the Children: and indeed it is scarcely possible to conceive of

circumstances more calculated to sow the seeds of future disease, *Coal and 1 Mines.* and, to borrow the language of the Instructions, to prevent the organs from being fully developed, to enfeeble and disorder their functions, and to subject the whole system to injury which cannot be repaired at any subsequent stage of life" (Franks, Report, s. 68: App. Pt. I., p. 396). In the West of Scotland, Dr. Thompson, Ayr, says: "A collier at fifty generally has the appearance of a man ten years older than he is" (Tancred, Evidence, No. 34: App. Pt. I., p. 371, l. 58). *Premature Old Age and Death. West of Scotland.*

The Sub-Commissioner for North Wales reports:—"They fail *North Wales* in health and strength early in life: at thirty a miner begins to look wan and emaciated, and so does a collier at forty: while the farming labourer continues robust and hearty" (H. H. Jones, Report, s. 83: App. Pt. II., p. 375).—John Jones, relieving officer for the Holywell district, states: "Though the Children and Young Persons employed in these works are healthy, still it is observable that they soon get to look old, and they often become asthmatic before they are forty" (H. H. Jones, Evidence, No. 96: App. Pt. II., p. 407, l. 51).

In the Forest of Dean, Mr. Thomas Marsh, surgeon, Coleford, *Forest of Dean.* states that "Colliers usually become old men at fifty to fifty-five years of age" (Waring, Evidence, No. 38: App. Pt. II., p. 25, l. 57). In North Somersetshire, William Brice, clerk and manager, says: "There are very few at work who are above fifty years of age" (Stewart, Evidence, No. 7: App. Pt. II., p. 50, l. 48).

Early death is the natural consequence of the premature decrepitude thus described to those whom ever-imminent casualties have not brought to the grave during the years of their vigour. The medical Evidence shows that even in South Staffordshire and Shropshire comparatively few miners attain their fifty-first year. *South Staffordshire, Shropshire, Warwickshire, and Leicestershire.* In Warwickshire and Leicestershire it is not uncommon for the men to follow their occupation ten years longer; but all classes of witnesses in the other districts uniformly state that it is rare to see an old collier.

In Derbyshire; William Wardle "Does not think colliers live *Derbyshire* so long as those above ground; very few live to be sixty" (Fellows, Evidence, No. 84: App. Pt. II., p. 287, l. 38). In Yorkshire, "Colliers have harder work than any other class of

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shire.* workmen, and the length of time they work, as well as the intense exertion they undergo, added to the frequent unhealthiness of the atmosphere, decidedly tend to shorten their lives" (Symons, Report, s. 110: App. Pt. I., p. 181).—Mr. Henry Hemingway, surgeon, Dewsbury, states, "I only know one old collier" (Symons, Evidence, No. 221: App. Pt. I., p. 282, l. 45).—Mr. Thomas Rayner, surgeon, Birstall, says, "I have had 27 years' practice, and I know of no old colliers—their extreme term of life is from fifty-six to sixty years of age" (Ibid. No. 268: p. 292, l. 51). In Lancashire, states Mr. Kennedy, "it appeared to me that the number of aged men was much smaller than in other occupations" (Kennedy, Report, s. 299: App. Pt. II., p. 188).

shire. After stating that the colliers of South Durham are a strong and healthy race, Dr. Mitchell adds:—"The work, however, is laborious and exhausting, and the colliers though healthy are not long-lived" (Mitchell, Report, s. 212: App. Pt. I., p. 143).—John Wetherell Hays, clerk of the Union, Durham, states, "That the colliers are not long-lived; that they live well and live fast" (Mitchell, Evidence, No. 96: App. Pt. I., p. 153, l. 57); and George Canney, medical practitioner, Bishop Auckland, says: "They are generally short-lived" (Ibid. No. 97: p. 153, l. 64).

iam, The Sub-Commissioner for the East of Scotland reports, that *it of
land.* after a careful consideration of all the sources of information which could assist him in the object of his inquiry, he arrives at the following conclusion: "That the labour in the coal mines in the Lothian and River Forth districts of Scotland is most severe, and that its severity is in many cases increased by the want of proper attention to the economy of mining operations; whence those operations, as at present carried on, are extremely unwholesome and productive of diseases which have a manifest tendency to shorten life" (Franks, Report, s. 121: App. Pt. I., p. 408).—Mr. Walter Jarvie, manager to Mr. Cadell, of Banton, states that "In the small village of Banton there are nearly forty widows; and as the Children work always on parents' behalf, it prevents them having recourse to the kirk-session for relief" (Franks, Evidence, No. 273: App. Pt. I., p. 486, l. 25).—Elspee Thomson says, "Most of the men begin to complain at thirty to

thirty-five years of age, and drop off before they get the length of forty" (Ibid. No. 73: p. 450, l. 31).—Henry Naysmith, sixty-five years of age, collier, who says he has wrought upwards of 50 years, adds that "he has been off work near 10 years, and is much afflicted with shortness of breath: it is the bane of the colliers, and few men live to my age" (Ibid. No. 83: p. 452, l. 29).

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In North Wales, "It is said but few colliers come to the age of sixty, and still fewer miners. This I believe to be the fact, though I met with many, both miners and colliers, who had attained the age of sixty, yet they were few compared with the number employed in these branches of industry" (H. H. Jones, Report, s. 84: App. Pt. II., p. 375).—Mr. John Jones, relieving-officer for the Holywell district: "Thinks they are not as long-lived as agriculturists" (H. H. Jones, Evidence, No. 96: App. Pt. II., p. 407, l. 53).—James Jones, overman, Cyfarthfa Works, states "That the colliers are generally very healthy and strong up to the age of forty or fifty; they then often have a difficulty of breathing, and they die at younger ages than agricultural labourers or handicraftsmen" (Ibid. No. 2: p. 378, l. 35).—Mr. John Hughes, assistant underground agent, says, "They do not appear to live long after fifty or sixty years old" (Ibid. No. 3: p. 379, l. 34.)

In South Wales the Sub-Commissioner reports that he "has not been able to ascertain, for want of sufficient data, the average duration of a collier's life in the counties either of Glamorgan or Monmouth, but it is admitted that such average duration is less than that of a common labourer. In the county of Pembroke, however, Mr. James Bowen, surgeon, Narbeth, in that county, informs me—The average life of a collier is about forty; they rarely attain forty-five years of age; and in the entire population of *Begelly* and *East Williamson*, being 1163, forming, strictly speaking, a mining population, there are not six colliers of sixty years of age."

"The Rev. Richard Buckby, rector of Begelly, in answer to one of the Queries in the Educational Paper of the Central Board, writes—The foul air of the mines seriously affects the lungs of the Children and Young Persons employed therein, and shortens the term of life. In a population of 1000 there are not six colliers sixty years of age" (Frauks, Report, ss. 67, 68: App. Pt. II., p. 484). In North Somersetshire, Mr. William

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Bryce, clerk and manager, Coal-Barton, states that they "commonly get broken in their health about forty or forty-five years of age, and then are not a long-lived race" (Stewart, Evidence, No. 7: App. Pt. II., p. 51, l. 14).

From a consideration of the whole of the preceding evidence it appears that persons employed in coal mines in general acquire a preternatural development of the muscles, especially about the arms, shoulders, chest, and back; that for some time they are capable of prodigious muscular exertion; that in a few years their strength diminishes, and many lose their robust appearance; that these then become pallid, stunted in growth, short of breath, sometimes thin, and often crooked and crippled; and that, in addition to several minor ailments, which, however, occasion no inconsiderable suffering, they are peculiarly subject to certain mortal diseases, the direct result of their employment, and of the state of the place in which they work* (*First Report*, pp. 173—194).

* After this review of the ascertained effects on health and life of employment in coal mines, under the circumstances in which it is at present carried on, a brief account of the mode in which these results are produced, as far as a knowledge of the laws of the animal economy enables us to afford it, may not be without interest.

From the period of birth to that of adult age, two processes are constantly taking place in the human body: one a process of consolidation, by which the proportion of the solids to the fluids increases, and the soft and tender structures gradually acquire density and firmness; and the other a process of augmentation, by which the several organs progressively increase in bulk. By the conjoint operation of these two processes, which comprise the essential conditions of growth, all the organs of the body are successively brought from their rudimentary state in infancy to their state of full perfection in adult age. Of these stages of growth, which are marked by definite and peculiar characters, known to every one, and which are commonly called epochs of life, namely, infancy, childhood, boyhood, girlhood, and adolescence, the first, or the period of infancy, extends from birth to the completion of the first dentition, that is, about the end of the second year. The second, or the period of childhood, extends from the completion of the first to the completion of the second dentition, that is, from the second to the seventh or eighth year. The third, or the period of boyhood and girlhood, extends from the seventh or eighth year to the epoch of commencing puberty, that is, in this climate, from the twelfth to the fourteenth year. The fourth, or the period of adolescence, extends from the commencement of puberty to adult age, that is, to the twentieth year for females, and the twenty-fourth for males.

In childhood all the organs are merely in the course of development, not one being complete in structure, or mature in function; and this is

more especially the case with the osseous, the nervous, and the muscular systems, on the full development of which the future health, strength, and intelligence wholly depend. The consolidation and augmentation of these systems, the object of every vital process which is now carried on, are accomplished chiefly by the nutritive organs, all of which, during this stage of growth, are in most active operation; and if from any cause the function of these organs is interrupted at this epoch, the injury inflicted is irreparable.

The external physical agents which are essential to the vital process of nutrition are food, air, and light; the two former supplying the materials that are employed in the process, while the latter exercises a modifying influence upon the process itself, which is shown by experience to be as important in the animal as it is in the vegetable body. But supposing these agents to be afforded in abundance, and supposing at the same time the digestive organs to be sound and active, so that sufficient nutriment is formed, it is obvious that the nutritive process may be interrupted, and the growth of the body impeded, by any causes which unduly abstract this nutriment from the system, or which give an undue proportion of it to some one part at the expense of the other parts. One of the most powerful means of rapidly expending the nutriment of the system is great and permanently sustained muscular exertion, the consequent exhaustion being in exact proportion to the degree in which the exertion is carried beyond the natural strength, and the measure of this excess being, as has been shown, the degree of fatigue induced. Even in the adult, who has only to maintain the tone and strength of muscles already fully developed, there is no more powerful cause of exhaustion than great and continuous muscular exertion, but when such exertion is exacted while the muscles are merely in the process of growth, it must be still more exhausting, because the muscles, as all other organs, are weak in proportion to their immaturity; and it must at the same time impede the process of growth, because the nutriment, instead of being applied to the development of the structures, is expended in sustaining this muscular exertion.

One evidence that great and continuous muscular exertion during the period of childhood acts injuriously on the body, and the more injuriously the younger the age, is afforded by that very effect which, at first view, might seem to indicate that it is innoxious, namely, the preternatural muscular development which it produces. Such a disproportionate muscular development, instead of being an indication of sound and robust health, is really a proof that the general system is starved by the over-nourishment of this one particular part of it; and that the system is weakened, not strengthened, by this undue expenditure of its nutriment upon the muscles, is shown by the evidence now collected, which proves indubitably that the body in general is stunted in its growth, that it is peculiarly prone to disease, and that it prematurely decays and perishes.

In estimating the influence on the physical constitution of great muscular exertion constantly exacted during the period of childhood, one further result of it deserves especial notice, namely, the retardation of the epoch of "puberty." Attention was first drawn to this result during the examination, by one of the Commissioners, of some Young

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Persons at a thin-seam coal-pit in Yorkshire, in which the work was particularly laborious, and the pit more than commonly wet and dirty. The Young Persons who came under observation were stated to be of various ages, from fourteen to eighteen, and one case was nineteen. On a careful examination of them, the Commissioner found that, with the exception of the teeth, which had developed naturally, there was not present a single sign of puberty. The same was subsequently found to be the case with great numbers of Young Persons examined specially with reference to this point, in many pits in the neighbourhoods of Wakefield and Halifax; and a similar retardation, though not in so great a degree, was observed in girls.

This effect of early labour will not be deemed of slight importance when it is considered that the determination of a due supply of blood to the organs to be developed at this epoch (which in the employment in question is abstracted from them, and spent upon the muscles) is essential to the maturity of the body, while the natural development of those organs imparts to the system an excitement which is essential to the completion of the growth of all the others, and more especially to the perfection of the organisation of the nervous system in general, and of the brain in particular—the last organ to acquire its mature growth, the seat and source of all the higher capacities and powers of the human being.

The positive diseases produced by the employment in question are of a peculiar and specific nature, partly the direct result of violent exertion long continued, such as disease of the heart, hæmorrhage, and rupture; and partly of the imperfect ventilation and drainage of the place of work, such as disease of the lungs, joints, and glands. In consequence of imperfect ventilation, the air of coal mines, which is commonly breathed during 12 out of the 24 hours, does not contain sufficient oxygen to decarbonise the blood: hence the blood becomes overcharged with that noxious ingredient (carbon), from which it is the main purpose of the function of respiration to purify it, and therefore cannot supply the organs with their natural pabulum and stimulus. For the same space of time, not pure atmospheric air, but atmospheric air loaded with deleterious gases, is unceasingly in contact with the lungs, by which these delicate structures are kept in a state of constant irritation, and their organisation ultimately destroyed; and, in great numbers of instances, these grievous effects are enhanced and hastened by exposure to damp and cold, by which inflammations and other painful affections are produced and maintained in the muscles, ligaments, and joints. The final result is, that by the combined operation of these various causes, the organic structures are worn out, and the vital powers exhausted, sooner than under the ordinary conditions of human life.

The transition from one stage of growth, or one epoch of life, into another, marks a corresponding advancement in the completion of the physical organisation, and the consequent acquisition of an increased capacity for usefulness and enjoyment. Under the ordinary circumstances of human life, this transition, up to the period of adult age, takes place with so much uniformity and precision that it is rare to find any one of these epochs anticipated or postponed by a single year. The vast mass of evidence which has now been brought under

view proves indubitably that, by the employment of Children at the very tender ages at which they commonly commence work in the coal mines, the growth of the body is retarded, and the period of childhood, properly so called, proportionally prolonged; while the same evidence shows that the period intervening between adult age and decrepitude—that is, the period during which the physical, the intellectual, and the moral powers of the human being are in full vigour—is abridged. It follows therefore that, at least in great numbers of instances, if not in general, employment in the coal mines, as that employment is at present carried on, protracts the period of childhood, shortens the period of manhood, and anticipates the period of old age, decrepitude, and death.—T. S. S.

III.—PHYSICAL CONDITION OF CHILDREN AND YOUNG PERSONS EMPLOYED IN MINES AND WORKS OF TIN, COPPER, LEAD, AND ZINC.

1. *Underground Labour.*

Cornish District.—"When the boys in this district exchange surface for underground work, they speedily lose the freshness of complexion in the first place, and gradually become for the most part sallow and sickly in hue" (Evidence, p. 830, l. 66; p. 848, l. 31; p. 849, l. 49; p. 850, l. 45). "This change is often, but not at all uniformly, associated with distinct unhealthiness, but it is no doubt connected with an impeded progress of development. No sort of deformity arises from their occupation. A very slight forward stoop is gradually acquired, and a rather long and cautious step, arising out of the habit of climbing, and of feeling the way among dark and dangerous places" (Barham, Report, s. 201 : App. Pt. I., p. 790).

"The influence of the solar rays, as constituting one of the modifiers of the nutrition of the body, is proportionally most important at the periods of life when that nutrition is most active. The same principle applies to the supply of the vital constituent of the air, only with greater force, as air is more indispensable to the completion of nutrition than light. The more directly poisonous gases and irritant particles diffused through the air are really more pernicious to the immature than to the adult, though they are apparently less so. The irritability of the nervous system of the young animal takes alarm on the first impression of hurtful agents, and the freedom of the secreting functions generally causes their complete elimination at the expense only of some temporarily increased

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action. But besides that this process, after being several times repeated, each time with less facility than before, is exchanged at last for inflammation or hemorrhage, the whole development of the body is arrested, whilst organs, whose healthy actions are essential to its nourishment, are occupied in resisting agents threatening direct injury to their structure. The result is that, when the usual age of maturity is attained at all, the maturity of a healthy and well-balanced constitution is rarely attained (*Ibid.* p. 831, l. 56; p. 834, l. 11-66; p. 835, l. 16). The mischief will be in this respect nearly proportional to the earliness of employment; and that it is so, the evidence collected for the present inquiry is abundantly sufficient to prove. The depositions at p. 829, l. 53-66; p. 830, l. 6; p. 841, l. 69; p. 843, l. 40; p. 848, l. 31; p. 852, l. 49; p. 853, l. 7, may be adduced as some of the more pointed statements of facts, which are illustrated by a very large proportion of the examinations.

"To put out of sight the frequent production of well-marked disease, the pallid complexion indicates clearly enough that the oxygenation of the blood is imperfect, and that the nutritive processes are interfered with, which is further proved on the large scale by the inferior development of the men as a body to that of the women (*Evidence*, p. 830, l. 67); (*Barham, Report*, s. 171, 172, p. 781, 782).

"Underground the boys take with them fare more or less substantial, according to the part of the day in which their 'course' of labour falls. But they always make use of some food whilst they are below, and this is justly considered one of the most beneficial changes which have occurred in the habitual practices of the miners (*Evidence*, p. 826, l. 14; p. 834, l. 1). The appetite is not always very keen in the hot and impure air with which they are surrounded, and sometimes very little of the food taken down is eaten there (*Evidence*, p. 853, l. 23, 45). Butchers' meat is only combined in very small proportion with the different articles mentioned above, especially for the Children. Beef is very little used; mutton is more common; but pork is the meat most largely employed for this as for all other purposes among the mining population (*Evidence*, p. 821, l. 43); (*Barham, Report*, s. 207: App. Pt. I., p. 790).

"The boys, like the men, when they go underground, substi-

tute for their ordinary apparel a loose woollen dress, thick shoes without stockings, and a strong hat with a convex crown, usually weighing from one to two pounds, and affording efficient protection to the head from falling bodies and blows, on which the candle is for the most part placed, inserted into a lump of wet clay. In very hot places the miners often throw off the greater part of the clothing of the body, and work almost in a state of nudity. On their return to the surface the underground garments are hung in a building appropriated to that use, called the 'dry' or 'drying-house,' and the ordinary dress is resumed. The habit of wearing flannel next the skin is prevalent among the miners, and the boys working underground are commonly provided with it. Their surface attire is very decent, and generally kept in pretty good repair. As they advance in age, a similar inclination to that manifested by their companions of the other sex to smartness of dress is developed; though it cannot usually be much indulged within the age to which this inquiry refers" (Ibid., s. 213: p. 792).

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"In a few mines, under the benevolent auspices lately referred to, the access to them, from the shafts by which the miner ascends, is by shallow levels terminating, by means of a short footway, in the interior of these buildings, so that the miner, when he comes to the surface, issues at once into a warm air without any exposure. In the changing-houses themselves, the degree in which accommodation is furnished for drying the clothes, and enabling the miner to change his dress without running the risk of chill, is very various. Some of the most perfect are described in the Evidence (p. 838, l. 54; p. 839, l. 39).

"Closely associated with these arrangements is the provision of warm water for cleansing the surface before the dress is changed. The quantity of water heated in condensing the steam—the great moving power in these mines—causes a ready access to this article, so essentially beneficial when the frame is exhausted, and the skin is coated with mineral dirt; but in the greater number of the mines it is allowed to escape without being collected in any reservoir where the men might effectually avail themselves of it. The excellent contrivance for this purpose at North Roskear is described in the Evidence (p. 839, l. 44)" (Barham, Report, s. 60, 61: App. Pt. I., p. 747).

The evidence shows that when a boy, inheriting from nature a

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sound and vigorous frame, does not begin to work in the mines until seventeen or eighteen years of age, he is able to pursue his occupation with comparative impunity. (Evidence attached to Dr. Barham's Report, I., p. 839, l. 56, 66; p. 838, l. 59; p. 841, l. 69; p. 828, l. 17; p. 829, l. 51; p. 831, l. 14; p. 836, l. 59.) But in general the same physical deterioration is produced by employment in these mines, as has been so fully shown to result from early labour in coal-mines. "When," says the Sub-Commissioner, "a boy, originally, perhaps, inclined to consumptive disease, having often a declining father (Evidence, p. 843, l. 55; p. 831, l. 9), sometimes left as the principal stay to a widowed mother with a large family (Evidence, p. 831, l. 32; p. 840, l. 24; p. 846, l. 62), obtains at 10 or 11 years of age a place underground, he works with spirit for some years, but he expends the whole capital of his constitution. He cannot give up his place whilst he can possibly do the work, for the necessities of his home render any exercise of parental authority rarely required to urge him forwards. He cannot get the kind of nourishment, or enough of it, to support his strength under exhausting labour, still less to give full materials for the development of the frame in its just proportions. The result is that he falls a victim either to acute disease, often produced by the rapid transitions of temperature occurring to every miner, or to consumption pursuing rather a rapid course, and frequently preceded by hemoptysis. This is a statement of facts which have repeatedly fallen under my own notice; similar ones may be seen in Evidence (p. 828, l. 18; p. 835, l. 45).

"Where there is more power of resistance in the original constitution, the effects of the excess of labour, deleterious and exhausting agencies, and deficient nutriment, will be evidenced chiefly in a stunting of growth and a general feebleness (Evidence, p. 824, l. 62). In these cases life is often prolonged, and the occupation of mining continued for many years, though the labour is always felt more or less oppressive (Evidence, Nos. 16 and 17), and is generally interrupted by attacks of illness; but such men have always the appearance of being older than they really are; and from 35 to 45 years of age they are often completely broken down, and at that period of life frequently fall into the slower and more characteristic form of consumption common among miners,

and do, I am well convinced, contribute very much indeed to swell the list of premature deaths by which the average life of the miner is rendered so much shorter than that of his agricultural neighbour.

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" Various forms of unhealthy action occur among the boys working under ground, whether as preludes of the early termination of life, or concomitants of the defective development noticed above, or as affecting those on whom they operate as timely warnings to quit the occupation altogether, or those whose more robust constitutions, or more favourable circumstances, enable them to resume it without permanent detriment."

From the Report of the Sub-Commissioner there appears to be a striking analogy between the positive diseases produced by employment in the mines of this district, and the maladies which have been shown to result from early employment in coal-mines.

The Sub-Commissioner reports that " Disordered action of the heart, sometimes connected with hypertrophy, or with the changes consequent on rheumatism, but more commonly without structural mischief, is a frequent occurrence. It is often associated with derangement of the functions of digestion, and both classes of symptoms may have been occasioned by exposure to 'poor air.' But I have seen several cases in which the palpitation appeared to have resulted purely from repeated over-exertion of the organ; and in some of these there was reason to believe that the food was very insufficient. That weakness, and correspondent irritability, were the conditions under which this unnatural action took place, was further shown by the perfect success of a treatment essentially tonic.* Instances of affections of the heart, varying in character as above detailed, may be found (Evidence, p. 840, l. 18, 27; p. 841, l. 69).

" Affections of the organs of respiration are frequent, and are either of the acute inflammatory nature to which sudden transitions of temperature will give rise, and consequently most common among those who work in the shallower mines, or parts of mines, and where the air and water are cold (Evidence, p. 835, l. 55;

* It will be seen, on reference to Evidence, p. 825, l. 59, that of seven boys examined very soon after their coming to the surface on the conclusion of their day's work, the pulse in all but one proved the exhaustion of the muscular power of the heart, produced by the circumstances of their labour.

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p. 828, l. 11 ; p. 840, l. 16) ; or they are of a more chronic form, apparently connected with the repeated inhalation of noxious gases and particles of matter, and, perhaps, with over-distention of the ramifications of the air-tubes and cells. Where inflammation is not produced, a more abundant secretion from the surfaces to which those noxious agents are applied, is the protection and mode of elimination furnished by nature, but this secretion being associated with an increased flow of blood to those surfaces, the reiterated call for the one renders the other almost continually necessary. The consequences are, an engorged and thickened state of the linings of the air-tubes, and a contraction of their bore, leading to forced dilatation afterwards in the course of violent respiratory efforts. Instances of such dyspnoea may be found (Evidence, p. 827, l. 46 ; p. 848, l. 17 ; p. 853, l. 58). It is probably an engorgement of the above description, affecting the larynx and trachea, which produces the hoarseness very commonly noticeable among these boys, examples of which occur in the Evidence (p. 843, l. 57 ; p. 853, l. 39 ; p. 854, l. 1).

The affections of the digestive organs chiefly met with among the boys working underground are disorders of the stomach, connected with the inhalation of 'poor air,' and seeming to be merely secondary to the influence of this air upon the brain. Pain in the head, becoming intense on stooping, giddiness proceeding sometimes to loss of consciousness, failure of muscular power, are described by miners of all ages as effects of this deleterious agent (Evidence, p. 851, l. 61 ; p. 852, l. 50 ; p. 853, l. 8, 22) ; but the greater irritability of the young subject seems to occasion the sympathetic affection of the stomach, shown by loss of appetite, nausea, or vomiting (Evidence, p. 853, l. 11, 23, 45). The powers of digestion are usually recovered in these cases very readily on the return to a pure air. It is at a later period of adolescence, approaching the limit of this inquiry, that more permanent dyspepsia often occurs (Evidence, p. 835, l. 20), arising mainly, I believe, from the general feebleness induced by premature underground labour, partly perhaps from repetition of the more transient disturbance just now spoken of, and increased by coarseness of fare, and at times by the use of tobacco, which is often commenced at about this age.

"No other forms of sickness can be said to be at all prevalent

among this class of boys. From diseases of the skin it has even been supposed that they enjoy something approaching to immunity; and though I have met with too many cases, even within the last few months, to accede to that opinion, it seems probable that the free action of the skin, promoted by underground labour, does tend to preserve it from eruption.

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"Excluding the effects of accidents, no surgical disease whatever occurs among these more frequently than among other labouring boys. They are, indeed, remarkably exempt from distortion and from hernia. The defective development, spoken of more than once, applies to the body as a whole, and not obviously to one part more than another; certainly it is not localised to the extent of causing deformity" (Barham, Report, s. 225—232: App. Pt. I., p. 795—97).

Alston Moor District.—The miners in this district are constantly exposed while at work to a highly deleterious air, of which Mr. James F. W. Johnston, F.R.S., of the University of Durham, gives the following account:—"In the lead mines in general the most abundant, and, I believe, the most deleterious gaseous *exhalation* is carbonic acid. This is particularly injurious in the dead-work or drifts, where there is no ventilation. It comes out sometimes in distinct jets from the sides of the passages and chambers, but more frequently it escapes from the rock in numerous places, and in quantities too small to be easily observed at each place of escape. The deleterious effect of this acid is heightened by that of the gases which are formed during the combustion of the gunpowder employed in blasting. These fumes float long in the atmosphere, especially of the longer drifts, and, to a stranger coming immediately from the purer air, render the air almost irrespirable. In the air by which the miner is surrounded there float also continually minute particles of ore and other stony materials, which contribute, in no little degree, to the production of those distressing complaints by which the latter years of a miner are almost always rendered miserable, and the lives of all shortened many years" (Mitchell, Report, s. 160: p. 739).

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Mr. George Arnison, surgeon to the workpeople employed by the London Company, says: "Although the ventilation of the mines is, with few exceptions, good and efficient, much supe-

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rior to what it was some thirty years ago, yet even in those parts of the mine where it is the best, and where there is neither a deficiency nor vitiation of the air, the miners are continually respiring, whilst at work in the mine, an air (however good in other respects) highly charged with minute particles of dust, smoke, and other effluvia, arising from their constant operation with the pick, the jumper, &c., and the frequent explosions of gunpowder used in blasting the mine.

"The miners," he continues, "generally speaking, are healthy and robust in early life, and do not exhibit any striking indications of their health being impaired by the nature of their employment before they reach the age of thirty. From that to forty their peculiar complaint imperceptibly steals upon them, and at the latter age they are generally affected with a degree of constriction in the chest, and difficulty of breathing, attended with increased embarrassment on ascending a hill or using any extra exertion. Few old miners are exempt from this dyspnœa, which, instead of regarding in a serious light, they look upon as a matter of course, and numbers of them continue their employment for many years after, suffering in a partial degree in this way. Some few individuals continue their work in the lead mines to the verge of seventy years, but they constitute a comparatively small number who are enabled to continue that employment even to the age of sixty; very many of them, I might say the majority of them, being permanently disabled at fifty, very frequently at forty, or from that to fifty. The habitual dyspnœa becomes seriously aggravated, so that the miner is no longer able to pursue his employment" (Mitchell, Evidence, No. 1: App. Pt. II., p. 755, l. 12).

"After the first shot goes off," says John Robinson, a working miner, "we have the reek about us all day" (Dr. Mitchell, Report, s. 159: App. Pt. II., p. 739).—"A man, by inhaling the powder-smoke and effluvia of the mine, injures his lungs. There is the perspiration off the men as well, which hurts them. There is a great quantity of sulphur in the spar, and the miner inhales it. There is arsenic combined in the stuff" (Ibid. s. 156: p. 738). "What between the powder-reek and the want of fresh air," says another miner, "we have sometimes great difficulty of breathing" (Ibid. s. 158: p. 739).

"All the evidence of the miners themselves and of the medical men," says Dr. Mitchell, "agrees in proving that the lives of the miners are shortened by the nature of their employment; yet I met with an agent of a large mining establishment who boldly asserted that the miners lived even beyond the average duration of life, and in proof of his assertion produced a paper drawn up by a surgeon, showing that the miners connected with his mine who have died for the 28 years past had averaged, one with another, $51\frac{1}{2}$ years.

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"As persons do not become miners until nineteen years of age, the above result, if correct, would show that the chance of life to a miner entering on the employment at nineteen was $32\frac{1}{2}$ years. This will no doubt appear a long period, but it falls short of the probable duration of life, as ascertained by the Swedish tables, which, for men of nineteen, is $38\frac{1}{10}$, or upwards of seven years longer than the average given by this surgeon of the miners. The Swedish tables are generally considered as more applicable to the body of the working people than any other which we possess, and give a shorter probable duration of life than tables formed from select bodies of men, as the government annuitants, or persons whose lives are insured in the Equitable Life Office.

"Having no means of testing the authenticity of the data for the table formed by the surgeon, I thought it expedient to consult the public register of the deaths for the district of Alston Moor for the last four years, from July 1, 1837, to June 30, 1841, being the whole period for which it has been kept. I found there the deaths of 79 persons entered as miners, but as four of them are under nineteen, and they probably were not regularly working in the mines, I omit them; and I find that the 75 miners who died above eighteen had amongst them lived the aggregate number of 3,389 years, being on the average forty-five years; from which nineteen, the time of commencing their labours, being deducted, gives us twenty-six as the average duration of the life of a miner after commencing his profession. This is six years and a half less than the time in the table formed by the surgeon, and it is nearly fourteen years less than the time ascertained by the experience of the males of the whole kingdom of Sweden.

"Out of the 75 deaths, the cause of death stated in 37 cases was consumption. There were also six cases of death from

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dict.* asthma, also a disease of the lungs. Considering it of importance that the truth as to the age of miners at death should be fully ascertained, and the value of the evidence of the medical men and miners rigorously tested, returns were obtained from the office of the Registrar-General in London of the deaths of the miners for the four years from July 1, 1837, to June 30, 1841, from the parishes of Allendale, in Northumberland; from the parish of Stanhope, including the chapelry of St. John's Weardale, in the county of Durham; and the parish of Middleton-in-Teesdale, in the same county. From these returns the following results were obtained:—

"In Allendale, during the four years, there were the deaths of 79 miners of nineteen years of age and upwards, and their aggregate ages amount to 3802 years, making the average age at death $48\frac{1}{2}$. This is more favourable than in Alston Moor, but falls short of the number of years given by the surgeon, and greatly short of the Swedish tables for the probability of life of persons of nineteen. 'The number of deaths from consumption is 36, and from asthma 2; together 38' (Ibid. ss. 264—270: p. 751).—
"In the parish of Stanhope, including the chapelry of St. John's Weardale, the number of deaths of the miners of nineteen years and upwards was 129, and their aggregate ages come to 6383 years, giving an average of $49\frac{4}{7}$ years. The number of deaths from consumption is 64, and from asthma 6, making together 70" (Ibid. ss. 272, 273, p. 752).—See also Evidence, Witnesses Nos. 1, 2, 5, 6, 7, 8, 17, 21, 26.

"At Middleton-in-Teesdale the number of deaths of miners nineteen years of age and upwards in four years is 57, and the aggregate ages make 2693 years, giving an average of $47\frac{1}{4}$. The deaths from consumption are 19, and from asthma 13, making together 32 deaths from diseases of the lungs, out of 57 deaths altogether" (Ibid. s. 276: p. 752).

"The evidence of the medical men and of the miners is fully borne out from the authentic registers of the districts; and it is to be observed that the Young Persons who go into the mines to begin the profession of a miner have survived the dangers of childhood and boyhood, and are probably in almost every case in at least an average state of health, or they would not likely undertake so laborious an employment. The average expectation of

life in the table formed from the experience of the capital of the county of Cumberland, and commonly called the Carlisle Table, is, for persons of nineteen years of age, $42\frac{1}{2}$ years; that is to say, the average age at which they die is sixty-one years, and far exceeds that of the miners of the fine, healthy, upland vales of the lead country" (Ibid. s. 278: p. 752). First Report, p. 221—6.

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2.—Surface Employment in Dressing Ores.

South-Western District.—"A strong line of demarcation," says the Sub-Commissioner, "must be drawn between the Children and Young Persons employed at the surface and those employed underground in the mines of the Cornish district, in respect to certain points in their physical condition."

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"The *external appearance* of the Children and Young Persons employed at the surface, taken as a class, is that of robust health. The complexion is generally florid, the person well formed, the expression alert and cheerful (Evidence, p. 830, l. 58). Among the girls as they approach towards womanhood there is an inclination to *embonpoint*, and many of them possess a considerable share of personal beauty; in the central district perhaps most remarkably, the features being often handsome. The greater part of the boys are drafted off to underground work before the frame is at all fully developed, but they are generally healthy and well-formed as long as they continue at the surface. The abundant supply of fresh air, and the variety of muscular movement, are the main causes of their healthiness and their freedom from deformity respectively" (Barham, Report, ss. 199, 200: App. Pt. I., p. 789).

"In *stature*, the difference which exists between those employed in mines, and others, is as regards the females in favour of the former, as has been partly stated already. The use of hammers tends perhaps to the production of some fulness of bust. In a former part of this report the weights of the men in different mines are given, and their stature is spoken of. The tendency of underground labour is to check the nutrition of the body, as has been already explained, and the degree of stunting produced will be proportionate to the earliness of the period of growth at which that labour is begun. Those who go underground when very young often acquire, after a short time, the countenance of much

older boys, whilst their size is below the average at their real age; their figures are also more set and angular than is natural in early life.

The food brought to the mines by the Children and Young Persons is for the most part sufficient in quantity for the one meal usually taken by them there, and perhaps for a slight refecton between breakfast and dinner. It is coarse in its quality and mode of preparation, and from these causes does not always afford sufficient nutriment" (Evidence, p. 821, l. 45; p. 845, l. 53). The hoggans and pasties are described in the Evidence, p. 821, l. 51.

"The Children of both sexes seem to get on very well with this diet. It is chiefly among the females a few years older that dyspeptic affections are frequent. Stews and fish and potatoes mixed together, and sent warm from their homes, are most common in the western districts (Evidence, p. 841, ll. 1, 23; p. 847, l. 37; p. 848, l. 27). The Children appear to find half an hour long enough to take their dinners (Evidence, p. 826, l. 26; p. 836, l. 21), and usually to get a little play as well. The older females complain sometimes that it is too short (Evidence, p. 846, l. 3; p. 851, l. 44).

"The extent of accommodation afforded for warming the food varies much in different mines. The most ample provision is that of ovens for the purpose (Evidence, p. 836, l. 34), but this is unusual. In other instances, as at Fowey Consols, the long iron cylinder, heated by a fire at one end, used for heating the shed in which the meal is taken, serves also to warm the latter. In many places recourse must be had to the house in which the miners' clothes are dried (Evidence, p. 845, l. 34), to the boilers of the steam-engines, or to the smith's shop, to effect this object. In some instances, as at the Fowey Consols, where ovens are kept in the neighbourhood, those who wish to get their pasties effectually warmed are able to have it done at the charge of a penny a-week.

"Cold water is most commonly the only drink to be obtained, and that is not always very abundant, being sometimes brought from a considerable distance, and distributed in limited quantities (Evidence, p. 845, l. 36). In a few mines there are facilities for obtaining hot water, or even a cup of tea, usually an infusion of

indigenous herbs (Evidence, p. 836. l. 35, Ibid. ss. 202—207 : App. Pt. I., p. 790). See
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"The food obtained by the Children and Young Persons at their homes varies very much in quality and abundance with the circumstances of the families. It is too frequently scanty (Evidence, p. 830, ll. 9, 18) as well as innutritious, and is usually very coarsely prepared (Evidence, p. 835, l. 27). Breakfast before going to work in the morning, and supper after their return, are the regular meals for those employed at the surface (Evidence, p. 822, ll. 28, 38, 54 ; p. 823, ll. 13, 45 ; p. 845, l. 55). The underground boys generally get some food when they reach their homes, at whatever hour that may be : at night some cold potatoes or bread will probably be all that can be obtained (Appendix A.).

"Where the family is large and very poor it will often happen that the earnings of the Young Persons of either sex will be disposed of in providing absolute necessities for the whole party, so that no difference is made in the amount of nourishment afforded to those employed in hard labour and the younger Children not yet able to work (Evidence, p. 825, l. 29 ; p. 828, l. 52). Such circumstances frequently induce the young men to seek a separate residence at the age of seventeen or eighteen ; and the medical man will often be consulted by females who are feeling the ill effects of being so situated, suffering from painful dyspeptic affections, arising chiefly from their not having sustenance at all calculated to give them strength for their laborious life, and seeking a delusive comfort from the stimulus of tea, which is largely used by all females of the working classes in the West of England. A further cause of the scantiness of their fare will be noticed presently.

"Speaking generally, the *clothing* of the Children and Young Persons employed in these mines is good and sufficient. Among the females a great deal of attention is paid to dress, increasing with their approach to womanhood ; but even the younger girls are usually furnished with very decent attire by their friends (Evidence, p. 850, l. 15). The occupations of the females not being usually very dirty, the ordinary dress, or one only slightly varied, is worn at the mine ; additional protection is, however, given to the lower part of the legs by wrapping them in woollen

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bands in the winter, and often in cotton ones in the summer. A certain smartness is noticeable in the bonnets, and in the manner of wearing them; they are generally small in the winter, and thrown rather back on the head, chiefly made of some lively-coloured material in some districts, and of straw in others; whilst in summer they are commonly large, straight, and projecting, with a long loose border, such as may afford effectual shelter from the sun. A rather amusing degree of concern for the preservation of the complexion is exhibited by some, who envelop their faces and throats with handkerchiefs, so as to present something of an inviolated appearance.

"On Sundays, and on any holiday occasion, apparel of a showy and often expensive description is commonly worn. Girls under the age of eighteen have not often money at their disposal for any great outlay in this line; but, without any disposition to underrate the value of a regard for personal appearance in the article of dress, as an evidence of self-respect, the writer is obliged to notice the existence of what may fairly be called a passion for dress, as very extensively diffused among the young women connected with the mines in every district (Evidence, p. 832, l. 69). As a medical man, he has often had cases brought under his notice in which he has been satisfied that disordered health has been mainly induced by coarse and scanty nourishment, whilst the patients have presented themselves in dresses only to be procured at very considerable cost. The same love of display is shown in the wearing of thin shoes and stockings during weather in which they are very unsuitable, causing a dangerous transition from the thick shoes usually worn by them, and the legs rolled up in woollen bands just now described. There is reason to believe that the provision of warm inner garments for the colder season is by no means correspondent with the outlay on those external ones which may serve to increase the personal attraction of the wearers. Some of the girls are liable to get wet, especially in the feet, in their employments; and all are so in coming to the mines. No provision is ever made there for a change of shoes or stockings under these circumstances, and the liability to injurious chill is consequently great, particularly to those (a large majority of the whole class) whose labour gives little or no exercise to the lower limbs. (Evidence, p. 845, l. 18.)

“ The work of a large proportion of the boys employed at the surface exposes them to wet and dirt ; and, however wet or dirty they may be, the same clothes are worn from the time they rise in the morning until bedtime at night ; and it is well if they are effectually dried before they are put on again on the following day (Evidence, p. 823, l. 10). The clothing is generally sound and sufficiently decent for labouring boys, and a good protection against cold and wet is commonly furnished in thick woollen frocks (Evidence, p. 850, l. 53), worn outside during the winter. The whole body, moreover, is brought into pretty active exercise in most of their occupations (Ibid. ss. 208-213 : App. Pt. I., p. 790-2).

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“ *Cleanliness* of person and dress will almost attend as a natural concomitant of that regard to appearance which has been noticed as exhibited by both sexes—it is accordingly *the rule* among the Children as well as the Young Persons. Of the latter, the greater part employed on the surface are females. Their work is not usually very dirty, and even when engaged about it they preserve a very cleanly appearance. At other times their fresh and clear skin, and well-washed clothing, correspond with the smartness of the articles themselves of their attire. The younger girls are neither equally well clothed nor equally clean ; and the work of the greater number (picking) exposes them more to wet and dirt. Still there is generally, even here, a degree of neatness, proving the disposition to do as well as circumstances permit. The little boys are most extensively employed in the midst of mineral mud, but they generally get rid of a great deal of it when their work is over. More might certainly be done in respect of these, both as to person and clothing. Still it is exceedingly rare to meet with an example of squalid filthiness in any member of a miner's family (Ibid. s. 214 : App. Pt. I., p. 792).

“ The generally healthy condition of the Children and Young Persons employed at the surface in these mines has been already noticed. In the principal mining districts comparatively few individuals belonging to families of the poorer class remain unconnected with mining labour during the period of life with which this inquiry is concerned. It is therefore difficult to ascertain whether the *amount of sickness* is greater or less among those working at the surface than among those remaining at home or

otherwise employed. The concurrent testimony of medical men,
 mine agents, and other well-informed parties, is to the effect that
 no young people are more healthy (Evidence, p. 830, l. 57;
 p. 835, l. 2; p. 848, l. 56; p. 850, l. 42). By one medical
 deponent a comparison is drawn (Evidence, p. 835, l. 9) between
 the mining and manufacturing girls, to the advantage of the
 former. Evidence may also be seen that the exchange of the
 occupation of straw-bonnet making (p. 823, l. 22) and of domestic
 service (p. 852, l. 41) for surface-labour at a mine, may be posi-
 tively beneficial to the health. The opinions of other medical
 men in different districts, equally favourable, may be seen in the
 Appendix (F).

"On the other hand, a certain amount of sickness is distinctly
 produced by the work itself, or its attendant circumstances. Many
 instances of this have been referred to in treating of the particular
 branches of employment. The depositions of the patients ex-
 amined furnish many other examples. One of the surgeons of
 Wheal Vor Mine confirms the statement given in the Evidence
 (p. 842, l. 42) of the frequency of certain disorders in that mine.
 (See his answers to queries, Appendix F. Ibid., ss. 216-17:
 App. Pt. I., p. 792.)

"It seems probable that the ruddiness of hue imparted by con-
 stant exposure to fresh air may give to these boys and girls an
 appearance of health to a certain extent deceptive. Moreover, as
 their ailments are, for the most part, of rather acute character,
 they prevent those who are suffering from them from coming to
 work, and thus the appearance of the whole body is not rendered
 less healthy by the admixture of many individuals labouring under
 disease: but some of these acute disorders prove rapidly fatal, and
 a greater number pass into incurable structural changes.

"But whatever be the ultimate influence on the average dura-
 tion of life produced by these surface operations, it is certain that
 no kind of surgical disease beyond the results of accident is occa-
 sioned by them. It would be difficult to find anywhere a class of
 girls and young women more free from malformation, distortion,
 or infirmity. The whole body is exceedingly well and equably
 developed, the muscular movements easy, and the step firm and
 elastic (Ibid., ss. 219-20: App. Pt. I., p. 793).

"Neither is there any prevalence of medical diseases, acute or

chronic. Fever, whether epidemic or sporadic, is infrequent, and, when generally diffused through their neighbourhood, does not affect the Young People employed on mines in any greater proportion than others. Scrofula is not common among this class, atrophy is very rare. 'There is reason to believe that consumption is more frequent than in non-mining districts; whether it is more frequent among those members of miners' families who are engaged in surface-labour at the mines than among those members who are not so employed, must for the present, as has been before remarked, remain in doubt' (Ibid. s. 221 : App. Pt. I., p. 793).

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Additional light is thrown upon the physical condition of the whole population in the South-Western Mining Districts by the Tables at pp. 740, 741, 742, 743, 793, and 794 of Barham's Report. The undersized appearance of the men is remarked by Dr. Mitchell in the Lead Mining District of Alston Moor, as well as by Dr. Barham in the Cornish District.

Alston Moor District.—The Sub-Commissioner states, that "the boys at the washing-floors in this district looked well, and seemed to go through their work with great spirit.

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"At the national school at Stanhope are about fifty boys and fifty girls; they manifested the usual animation of Children in their march to church, and their countenances announced mental activity and intellect.

"The same observation might be made of the Children of both sexes at the schools supported by the London Lead Company at Nenthead, in Alston Moor, and at Middleton-in-Teesdale. In the clothing of the Children economy was evidently the first consideration, and substantial strength was more thought of than ornament; but altogether their clothing seemed quite sufficient.

"The medical witnesses state that the Children are not subject to any particular diseases; so also state the workmen themselves. If any country be favourable to health, we may say so of this.

"Intimately connected with the physical condition is the diet and lodging. As to the diet, it will appear, from the evidence of the witnesses, that it consists much more of vegetable food than amongst the miners of the coal districts. Beer is not nearly so much drunk. In the parish of Hunstonworth, which is seven

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miles long and three broad, and in which are the works of the Derwent Company, there is not a single beer-shop or public-house of any sort. A miner in the lead-mines, as some of the witnesses have observed, does not require so much food as in the coal-mines, and this arises from want of ventilation to procure him an appetite; and so much the worse.

"The houses of the miners are substantial and well white-washed, but the furniture is nothing like so valuable as the furniture of the miner in the coal districts; the wages will not afford it" (Mitchell, Report, ss. 257-262: App. Pt. II., p. 750. Evidence, Nos. 2, 25, 31-33, 40, 42).

We have already noticed the injurious effects of the places called "Lodging Shops," common in some parts of this district, which contain Young Persons as well as adults, and the close, crowded, filthy, and poisonous condition of which would be beyond all belief but for the evidence by which the faithfulness of the picture that has been drawn of them is established (Mitchell, Report, s. 164: App. Pt. II., p. 740; s. 187, p. 742. Evidence, Nos. 38, 39).

In a room 18 feet in length and about 15 feet in breadth were found "on one side of the room three beds, each 6 feet long by about $4\frac{1}{2}$ feet wide, the three beds extending the length of the room; then there were three other beds on the other side; and at the farther end was a seventh bed, extending from the one line of beds to the other. Immediately over these seven beds, and supported on posts, were seven other beds, placed exactly in the same way. The person who slept in each of the six beds next the wall of the upper tier could raise his head only a very little way, on account of the roof. Each of these fourteen beds was intended for two persons, when only few men were employed at the mine, but they might be made to receive three men each; and, in case of need, a boy might lie across at their feet. There was no opening of any sort to let out the foul air. Yet from thirty to forty persons might have to sleep there; the men perspiring from their work, and inhaling the small dust from their clothes floating in clouds. The beds were stuffed with chaff. There were blankets, but no sheets. Though the beds had not been occupied for the three preceding nights, the smell was to me utterly intolerable. What the place must be in the summer nights

is, happily for those who have never felt it, utterly inconceivable. The medical men are best able to give a judgment on these matters, but, for my own part, I cannot but believe that these lodging-houses are more destructive than the air of the mines. I should think it no hardship to have to remain 24 hours in a mine, but I should be terrified at being ordered to be shut up a quarter of an hour in the bed-room of a lodging-shop."

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Leadhills.—In this district the food of the Children is generally oatmeal porridge, buttermilk, and oatmeal cake for breakfast and supper; and, for dinner, potatoes with a little butter or milk; scarcely ever flesh meat. The parents are all very poor, and some of the Children are poorly clad for their exposed labour, with their clothes and clogs worn out, and too often with bare feet.

Scotland

"I entered," says Mr. Fletcher, "many of the miners' cottages, in which the principal apartment serves for both bed-room, sitting-room, and kitchen; an arrangement inimical to neatness and cleanliness, and the advantages of which can be appreciated only by bearing in mind the wretched climate and the cost of fuel. The entrance to these cottages is generally by narrow folding-doors opening into a little sunken porch, communicating with an outer chamber of varying size, used generally for stores of turf, potatoes, &c. Two contiguous beds, sunk into closets, usually occupy the side of the living-room opposite the fire; and in the most comfortable of these rooms are respectable presses, tables, shelves, &c. But others exhibited the extreme of destitution, with floors of earth, beds of heath, and an utter want of bed-clothes. Scarcely any were without books, of which the most modern were productions of the Scottish popular press, and the older, the Scriptures, and some books of divinity of the past century.

"So small is the consumption of animal food at Leadhills, that the butcher who used to be in the place has left it; and when a sheep is killed it falls by a general conspiracy of the principal inhabitants, who bespeak the several portions of it from the man who kills, and who, I was told, might otherwise 'eat it himsel'." The old men complain that advanced prices, with which their wages have by no means kept pace, prevent their getting meat and butter, as they did when a sheep sold for 4s.

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and butter for 4*d.* per lb. Scots. But for this deprivation they have been partly compensated by the increased use of milk, as they have reclaimed additional meadow plots for their cows from the sides of the hills around them. Mr. Weir, overseer of the underground works, describes their principal food to be oatmeal (No. 46); and his account of the prevalent mode of living was confirmed by other witnesses, part of whose testimony on this subject is annexed (Nos. 43, 44). It is the habit to dress very decently on holidays.

“The effects resulting to health from mining labour, as here conducted, are by no means favourable. The results are summed up in Dr. Martin's Medico-Statistical Report (No. 47), with which the common opinion of the older inhabitants agrees (No. 46). The Children are cleanly for the style of cottage life which prevails generally in North Britain” (Fletcher, Report: App. Pt. II., ss. 15, 17, p. 863; and No. 44, p. 867, l. 5, l. 58).

North
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North Wales.—The Sub-Commissioner for this district reports:—“The physical condition of the boys is very satisfactory. It is observed that the Welsh in stature do not come up to the standard of the English and Scotch; the observation may be founded on fact, and accounted for by the little intermixture of foreign blood which, till of late years, took place in the principality, at least in the northern parts. The distinctive character which has almost up to the present time been preserved in Wales is likely very soon to be lost. The increase of works, the improved state of the roads, and the general introduction of steam-vessels have tended to bring into Wales an immense influx of English, Scotch, and Irish persons of all ranks, who intermarry with the Welsh families. In the course of my inspection I cannot say I met with any appreciable difference in the stature of the Welsh boys. Those employed in the pits and at the mines were at least equal in personal appearance and stature to the Children of the same age and station in the same neighbourhood not put to any such labour.

“In respect to food I must observe that the diet in Wales is of a lower order than that of England. Less of animal and more of milk and farinaceous food is used; but everywhere the Children have a sufficient quantity of nourishing diet, though in qua-

lity it may be esteemed inferior. Children at work in the pits and mines breakfast before they leave home; their dinner is brought to them by their friends, and consists of bread, butter, potatoes, a little bacon occasionally, with milk or broth. They have supper at home on their return from work; most of them have a piece of bread and butter to eat between breakfast and dinner, and between dinner and supper, which is eaten while at work.

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“ Their physical condition is a proof that they have a sufficiency of nutritive food to maintain health and strength, and their food is certainly both in quality and quantity equal to that which Children of their station and neighbourhood have who do no work; their clothing is in most instances well calculated for their work and station. At neither the pit nor the mines is it usual for the Children to have a change of clothing to put on after work; it may not be requisite in the pits, but at the mines, where they work in the open air in all sorts of weather, a change would be desirable, especially as the working clothes must be loaded with the dust of lead-ore.

“ It is difficult to say whether the amount of sickness amongst these Children be greater than amongst the Children of the poorer classes employed or remaining at home unemployed, as I found but few who were not employed in the pits or at the lead-mines; those so employed are a healthy class, and evidently suffer nothing from the nature of their work, with the exception of the liability to the peculiar state of the bowels which the Children employed in picking and washing the lead-ore are occasionally subject to. It is, however, easily removed by aperients, and is rarely dangerous, as is proved by the evidence of the medical men in Mold and Holywell, who also prove that the surgical diseases prevalent among the Children in question are only such as are caused by accident, as burns, bruises, dislocations, and fractures; and that hernia, distortion of the spine or joints, or any other maladies to which human nature is liable, are no more common than amongst other Children not so employed. Nor are acute medical diseases found to prevail more amongst Children in the mines and pits than others. Mr. Roberts, surgeon at Ruabon, states that fever, when once in a collier's house, generally runs through the family; and in crowded villages through all the families. He attributes this to no peculiarity brought on by the nature of their

work, but to the smallness of their cottages, the want of due ventilation, the total neglect of external cleanliness and drainage, the cottage floors being on a level with the ground, and the pigsty and dunghill close to the door. The medical men allege that the colliers and miners bear the usual means of cure, such as bleeding and depletion in inflammatory diseases, and amputation when necessary, as well as others differently employed." (H. H. Jones, Report, ss. 35-8: App. II., p. 369, 370.)

d. *Ireland*.—The appearance of the Young People at work on the surface in this district is described as being generally that of robust health, although they are without shoes or stockings, commonly without any change of clothes, get only two meals of potatoes a-day, with sometimes a little buttermilk, and inhabit the wretched cabins which shelter a teeming population even on the sides of the poorest and remotest mountains (Reports and Evidence from Mr. F. Roper, *passim*, and from Mr. T. Martin, App. Pt. II., No. 28, p. 881, l. 66; No. 42, p. 883, l. 391). (*First Report*, p. 245—251.)

3.—*Copper Works.*

“Notwithstanding the deleterious effects of the copper-smoke upon vegetable and animal life, as above described, the inhalation of it does not appear to operate prejudicially upon human health, as will be observed by the testimony of the workpeople and agents who reside around the works, and of the medical gentlemen of the neighbourhood. Mr. Edward Budd, the intelligent agent of the Havod Copper Works (one of the largest establishments), speaking of the health of the men, observes—‘They are generally very healthy, seldom or never attacked by epidemics or agues; many live to a great age, some above ninety; and the deaths among the workmen in this establishment, in the last four years, did not exceed $1\frac{1}{4}$ per cent. per annum; not one died during the raging cholera in 1832, although many were attacked; those dwelling close to the works are generally the most healthy; and the doctor attends our people at one-third less per month than the colliers pay;’—which statement is borne out by the evidence of Mr. W. P. Evans, the surgeon of the works, and of G. G. Bird, M.D., of Swansea, who has extensively practised in the immediate neighbourhood of copper-works for the last fifteen years” (R. W. Jones, Report, ss. 9, 10: App. Pt. II., p. 679).

IV.—CONCLUSIONS RESPECTING THE PHYSICAL CONDITION OF CHILDREN AND YOUNG PERSONS EMPLOYED IN MINES.

In summing up the results of the preceding evidence upon the physical condition of the Children and Young Persons employed underground, the Commissioners state—

*Coal and
Iron Mine.
Conclusion.*

That in general the Children and Young Persons who work in the Coal and Iron Mines have sufficient food, and, when above ground, decent and comfortable clothing, their usually high rate of wages securing to them these advantages; but in many cases, more especially in some parts of Yorkshire, in Derbyshire, in South Gloucestershire, and very generally in the East of Scotland, the food is poor in quality and insufficient in quantity; the Children themselves say that they have not enough to eat; and the Sub-Commissioners describe them as covered with rags, and state that the common excuse they make for confining themselves to their homes on the Sundays, instead of taking recreation in the fresh air, or attending a place of worship, is that they have no clothes to go in; so that in these cases, notwithstanding the intense labour performed by these Children, they do not procure even sufficient food and raiment: in general, however, the Children who are in this unhappy case are the Children of idle and dissolute parents, who spend the hard-earned wages of their offspring at the public-house.

That the employment in these mines commonly produces in the first instance an extraordinary degree of muscular development, accompanied by a corresponding degree of muscular strength: this preternatural development and strength being acquired at the expense of the other organs, as is shown by the general stunted growth of the body.

That partly by the severity of the labour and the long hours of work, and partly through the unhealthy state of the place of work, this employment, as at present carried on in all the districts, deteriorates the physical

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constitution ; in the thin-seam mines, more especially, the limbs become crippled and the body distorted ; and in general the muscular powers give way, and the work-people are incapable of following their occupation at an earlier period of life than is common in other branches of industry.

That by the same causes the seeds of painful and mortal diseases are very often sown in childhood and youth : these, slowly but steadily developing themselves, assume a formidable character between the ages of thirty and forty ; and each generation of this class of the population is commonly extinct soon after fifty (*First Report, Conclusions*, p. 258).

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That, in general, the Children and Young Persons employed in the Tin, Copper, Lead, and Zinc Mines have sufficient food, and decent and comfortable clothing.

That employment in these mines does not, in general, produce any apparent injury to the young worker during the period of boyhood and adolescence, but that his employment is essentially, and in every mode in which it has hitherto been carried on, necessarily injurious in after-life.

That the very general and early deterioration and failure of the health and strength of those who have followed this occupation from boyhood and youth is increased by certain circumstances which are not necessarily connected with the nature of the employment : among these may be reckoned the practice, almost universal in these mines, of associating the Young Persons in partnership with the adult miners, by which the former are stimulated to exertions greatly beyond their age and powers ; and though these Young People, thus excited, work with spirit and without apparent injury for some time, yet in a few years it is proved by experience that they have expended the whole capital of their constitution.

That this result is materially hastened by the fatigue of climbing the ladders ; these being, with few exceptions, the only means by which the miners can go to and return from their places of work.

That these, however, are only the accessory causes of the general and rapid deterioration of the health and strength of the miners; since the primary and ever-active agent which principally produces this result is the noxious air of the places in which the work is carried on; the difficulties connected with the purification and renovation of this air, and with the whole subject of ventilation, being incomparably greater in the mines in question than in coal mines.

*Tin, Copper
Lead, and
Zinc Mines
Conclusion:*

That the ultimate effect of the disadvantageous circumstances under which the miner is obliged to pursue his laborious occupation is the production of certain diseases (seated chiefly in the organs of respiration), by which he is rendered incapable of following his work, and by which his existence is terminated at an earlier period than is common in other branches of industry, not excepting even that of the collier (*First Report, Conclusions, p. 260*).

MANUFACTURES.

V.—EMPLOYMENT OF CHILDREN AND YOUNG PERSONS IN TRADES AND MANUFACTURES NOT INCLUDED UNDER THE OPERATION OF THE FACTORIES REGULATION ACT.

From the whole of the evidence, state the Commissioners, which has been collected under the present Commission, and attached to this our Second Report, relative to the EMPLOYMENT of the Children and Young Persons, included within its terms, who are engaged

*Employment
Trades and
Manufactures.*

In TRADES AND MANUFACTURES, we find—

That instances occur in which Children begin to work as early as three and four years of age; not unfrequently at five, and between five and six; while, in general, regular employment commences between seven and eight; the great majority of the Children having begun to work before they are nine years old, although in some few occupations no Children are employed until they are ten and even twelve years old and upwards.

That in all cases the persons that employ mere Infants and the very youngest Children are the parents them-

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selves, who put their Children to work at some processes of manufacture under their own eye, in their own houses; but Children begin to work together in numbers, in larger or smaller manufactories, at all ages from five years old and upwards.

That, of the whole number of persons employed in carrying on these Trades and Manufactures, a large portion are under thirteen years of age, and a still larger portion between thirteen and eighteen, although in some cases the numbers under thirteen nearly equal those between thirteen and eighteen; and there are instances in which the numbers below thirteen even exceed those between thirteen and eighteen.

That in a very large proportion of these Trades and Manufactures female Children are employed equally with boys, and at the same tender ages; in some indeed the number of girls exceeds that of boys; and in a few cases the work, as far as it is performed by those under adult age, is carried on almost entirely by girls and young women.

That in some branches of Manufacture of large extent, such as pillow-lace making, straw plaiting, and card setting, the greater part of the Children of the youngest ages, excepting those who are employed at home under the eye of their own parents, are engaged by mistresses, and work in what are termed schools, but which are rather workshops.

That in the great majority of the Trades and Manufactures the youngest Children as well as the Young Persons are hired and paid by the workmen, and are entirely under their control; the employers exercising no sort of superintendence over them, and apparently knowing nothing whatever about them.

That in some of these Trades and Manufactures, though comparatively few, the Children and Young Persons are employed directly by the proprietors.

That in by far the majority of these Trades and Manufactures it is the practice to employ apprentices to a great extent.

That in some Trades, those especially requiring skilled

workmen, these apprentices are bound by legal indentures, usually at the age of fourteen, and for a term of seven years, the age being rarely younger, and the period of servitude very seldom longer; but by far the greater number are bound without any prescribed legal forms, and in almost all these cases they are required to serve their masters, at whatever age they may commence their apprenticeship, until they attain the age of twenty-one, in some instances in employments in which there is nothing deserving the name of skill to be acquired, and in other instances in employments in which they are taught to make only one particular part of the article manufactured; so that at the end of their servitude they are altogether unable to make any one article of their trade in a complete state.

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That a large proportion of these apprentices consist of orphans, or are the Children of widows, or belong to the very poorest families, and frequently are apprenticed by boards of guardians.

That the term of servitude of these apprentices may, and sometimes does, commence as early as seven years of age, and is often passed under circumstances of great hardship and ill-usage, and under the condition that during the greater part, if not the whole, of their term, they receive nothing for their labour beyond food and clothing.

That this system of apprenticeship is most prevalent in the districts around Wolverhampton, and is most abused by what are called "small masters," persons who are either themselves journeymen, or who, if working on their own account, work with their apprentices.

That in these districts it is the practice among some of the employers to engage the services of Children by a simple written agreement, on the breach of which the defaulter is liable to be committed to gaol, and, in fact, often is so, without regard to age.

That in these districts it is common for parents to borrow money of the employers, and to stipulate by express agreement to repay it from their Children's wages; a practice which prevails likewise in Birmingham and

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Warrington : in most other places no evidence was discovered of its existence.

That in some few Trades and Manufactures, but these of large extent, care is taken to render the place of work convenient, healthy, and safe; but in the great majority of instances the places of work are very defective in drainage, ventilation, and the due regulation of temperature, while little or no attention is paid to cleanliness.

That, even in those Trades and Manufactures in which deleterious substances are used, there is in general no accommodation for the workpeople to change their clothes on leaving the place of work, or to wash themselves if they remain at meal-times; and it is very uncommon for any means to be provided for the workpeople to dress or warm their food.

That in all the districts the privies are very commonly in a disgusting state of filth, and in great numbers of instances there is no separate accommodation for the males and females; but in almost all the buildings recently constructed a greater attention has been paid to the health and the decent comfort of the workpeople than in those of older date.

That the work in which Children and Young Persons are employed is seldom in itself oppressive, or even laborious; and very few indeed of the processes in the care and management of which Children take any part are in their own nature injurious; but to this there are some lamentable exceptions in certain processes connected with the manufacture of metal wares, of earthenware, and of glass.

That in some few instances the regular hours of work do not exceed ten, exclusive of the time allowed for meals; sometimes they are eleven, but more commonly twelve; and in great numbers of instances the employment is continued for fifteen, sixteen, and even eighteen hours consecutively.

That in almost every instance the Children work as long as the adults; being sometimes kept at work sixteen, and even eighteen hours, without any intermission.

That in the case of young women employed in the millinery and dressmaking business in the metropolis, and in some of the large provincial cities, even in what are considered the best regulated establishments, during the busy season, occupying in London about four months in the year, the regular hours of work are fifteen; but on emergencies, which frequently recur, these hours are extended to eighteen; and in many establishments the hours of work during the season are unlimited, the young women never getting more than six, often not more than four, sometimes only three, and occasionally not more than two hours for rest and sleep out of the twenty-four, and very frequently they work all night; there being in fact no other limit to the duration of their labour than their physical inability to work longer.

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That in the Trades and Manufactures (and these constitute the great majority) in which the master is considered to be exonerated from all care and charge of the Children, because they are hired and paid by the workmen, the hours of work for the Children are almost always the longest, and their labour is performed under the most oppressive circumstances; it being the common practice with many of these workmen to work most irregularly; remaining idle during the early part of the week, and then working excessively at the latter end of it; and by their hours of work, whatever they may be, those of the Children must be regulated.

That in some processes of manufacture, as in winding for lace machines, the Children have no regular and certain time whatever for sleep or recreation, being liable to be called upon at any period during sixteen, twenty, or twenty-two hours out of the twenty-four, while they have frequently to go from one place of work to another, often at considerable distances, at all hours of the night, and in all seasons.

That in many Trades and Manufactures of great extent and importance there is no night-work; but in others it is so general and constant, that it may be regarded as a part of the regular system of carrying on these

branches of industry : while all classes of witnesses, in all the districts in which this practice is prevalent, concur in stating that its effect is most injurious, physically and morally, on the workpeople in general, and on the Children in particular ; and a large body of evidence is presented by them to show that no countervailing advantage is ultimately obtained from it even by the employers.

That in the great majority of these Trades and Manufactures, from one hour and a half to two hours are regularly set apart for meals, during which period the work is commonly suspended, and often the machinery is stopped ; but that there are in many of the districts large branches of manufacture in which, though a nominal time is allowed for rest and refreshment, there is really little or no interruption to the labour, and the food is taken very irregularly.

That, although in general little or nothing is done to afford the Children and Young Persons the means of enjoying innocent amusement and healthful recreation in the intervals of their labour, they have often a good deal of idle time ; seldom working on the usual national holidays and festivals ; and being frequently allowed holidays at the fairs and races of the neighbourhood ; while it is a common practice for them to leave off work at an early hour on the afternoon of Saturday.

That in the cases in which the Children are the servants of the workmen, and under their sole control, the master apparently knowing nothing about their treatment, and certainly taking no charge of it, they are almost always roughly, very often harshly, and sometimes cruelly used ; and in the districts around Wolverhampton, in particular, the treatment of them is oppressive and brutal to the last degree.

That in the comparatively few large establishments in which the Children are employed and paid directly by the master, and in which, either by his own personal inspection, or by that of an intelligent and vigilant agent, he exercises a superintendence over the Children, there is not only a great increase in their happiness,

but uniformly a striking improvement in their general conduct; and that in every trade and district there are some establishments in which corporal punishment is neither allowed nor practised, and from which any workman who ill-uses a Child is dismissed; while the general tenor of the evidence shows that, in almost all Trades and Manufactures in all the districts, the treatment of the Children in later years is less inconsiderate, harsh, and oppressive than it was in former times.

That, although in some few Trades and Manufactures machinery of a dangerous character is employed, and accidents of a serious nature occasionally occur, yet in general Children are but little exposed to danger from this cause; that accidents—such as hands contused, fingers cut off, jammed between wheel-cogs, or drawn in between rollers, and arms caught in straps—are, however, in some establishments, by no means uncommon; that sometimes the straps, wheels, &c., are so crowded and exposed that the utmost care is required on the part of the workpeople to escape injury; and that, in by far the greater number of instances, accidents might be prevented, if proper attention were paid to the disposition and fencing of the machinery (*Second Report, Conclusions*, pp. 195-198).

VI.—PHYSICAL CONDITION OF CHILDREN AND YOUNG PERSONS EMPLOYED IN TRADES AND MANUFACTURES.

With few exceptions there is nothing in the nature of the employments included under the present inquiry directly injurious to the health, but they are often pursued under circumstances which manifestly interrupt the nutritive functions and check the growth of the body; while the demand made upon the strength of the Children, by their early labour and their long hours of work, is not in general sustained by wholesome and sufficient food, nor are they commonly protected by warm and comfortable clothing; and consequently, in great numbers of instances, they are pale, weak, and sickly; and the general tenor of the medical evidence shows that they are more disposed than Children of their age and station

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factures.* unemployed in labour to certain diseases which shorten life, although, in so large a body of Children, some are robust, active, and healthy.

Metal Wares.

etal Wares. The Children employed in some of the trades of Birmingham are *irmingham.* stated to be in a deplorable condition as to food and clothing. "On questioning them," says the Sub-Commissioner, "I found that they seldom if ever had enough to eat, and many of them were in rags" (Grainger, Report: App. Pt. I. p. 1st 23, s. 215).—This appears to be more particularly the case with the pin-makers. "About half of the headers," says one of the witnesses, "appear to have enough to eat, and are pretty well clothed; the other half don't ever know what it is to have enough to eat; some often come without breakfast. Has seen some bring a pennyworth of bread with nothing to it to last the whole day. If Mr. Field did not lend the Children a trifle of money, as a penny, they often would have no food" (Grainger, Evidence: App. Pt. I. p. f 122, l. 15).—"Often comes without his breakfast; he and his brother had none yesterday or the day before, because his mother had none in the house; got nothing to eat till one o'clock" (Ibid. p. f 123, l. 15).—"Has not had more than two or three meals this week; never gets enough to eat" (Ibid. p. f 158, l. 55).

Cases have occurred of Children staying from eight in the morning till seven at night without having food (Ibid. p. f 124, l. 40).—"Knows that sometimes these Children get no breakfast, and have nothing till dinner-time; if the men did not sometimes help them by giving them part of their own dinners, they would have scarcely anything to eat; believes this is the same in any manufactory in the general way of trade" (Ibid. p. f 134, l. 66).—"Has made attempts to improve the condition of the Children, by giving them aprons and cotton dresses, but found that immediately some of the Children left, and believes that most of their things were taken by the parents and pawned" (Ibid. p. f 120, l. 4).—"They are generally badly clothed, the best part in this shop have neither shoes nor stockings, winter or summer. Their body clothes, which are very slight and insufficient, are often ragged" (Ibid. p. f 122, l. 19).—"Witness thinks, from the pallid countenances of the headers, from their long con-

finement and work, from their want of sufficient food and clothing, ^u that they are in an unhealthy and weakly state. Headers occasionally are away from illness, more so than other Children in the manufactory. Has not known any case of deformity from this work. Headers have often the appearance of being stunted in their growth; the generality of them are short and weakly; they are badly clothed, and 'the poorest of the people.' Thinks they have not sufficient food. They often come in winter without shoes or stockings, and very slight garments, indeed scarcely to cover their nakedness" (Ibid. p. f 121, l. 11). "Many of the Children," says the Sub-Commissioner, "whom I examined were very pale and weakly in appearance; in many cases this depended more on the want of sufficient food and other necessities than on the nature of the employment. One of the examining surgeons for the recruiting service states, "The mechanics are shorter, more puny, and altogether inferior in their physical powers; many of the men are distorted in the spine and chest." One serjeant says, "The mechanics are generally shorter than in any other town he has known, the general height being from five feet four inches to five feet five inches" (Nos. 492, 493, 495). Out of 613 men enlisted, almost all of whom came from Birmingham and five other neighbouring towns, only 238 were approved for service (No. 493).—All my inquiries induce me entirely to concur in a statement contained in the Medical Report, namely, that "more evil consequences to health perhaps arise from the workshops than from the processes carried on in them" (p. 181). The almost total absence of effectual ventilation, the consequent contamination of the air, the excessive heat at one time and cold at another, are prolific sources of disease. It has already been stated (see s. 182) that only a few of the manufacturing processes can be regarded as positively noxious in themselves. With these exceptions, and the general deterioration produced by sedentary occupations, and the causes above stated, it may be concluded "that the employments of the artisans in this town do not produce any specific forms of disease" (p. 181).—"Although the stamina of the labouring population is certainly much deteriorated, Birmingham is peculiarly favoured with respect to the occurrence of fever; typhus in fact may be termed a rare disease when a comparison is made with other large towns. The very remarkable exemption

res. which this town experienced when the Asiatic cholera was ravaging the neighbouring town of Bilston, only 10 miles distant, may also be adduced as a proof of the general salubrity (p. 178). —It would be a very interesting as well as important inquiry to determine the circumstances which render the occurrence of fever thus comparatively rare. There can be no doubt that the fact of each family having a distinct and usually comfortable dwelling has a most beneficial influence: it is probable that there is no large town in the kingdom where proportionally there are so many comfortable residences for the labouring population. The great number of courts, amounting five years ago to 2030, must also promote the general health, being in fact so many small squares scattered over the town. The great width of the principal thoroughfares (there is a distance of three miles upwards of 30 yards wide, see No. 491) concurs in promoting the health of the inhabitants. The excellent natural, and, generally speaking, good artificial drainage, and the abundant supply of water, together with the character of the substratum, sand and gravel, are other favourable circumstances; nor should the entire absence of cellars used as dwellings, and the general ease, depending on the goodness of wages, which has usually prevailed here, be overlooked (p. 178). It is a painful circumstance that the rate of infant mortality is very high, Birmingham in this respect standing forth among the large manufacturing towns; one-half of the total number of deaths registered are those of children under five years of age (p. 178). It is difficult to disconnect this awful mortality from the fact that the great bulk of the married females are engaged in daily labour. Women, if well, continue at work till the very day of their confinement, and they generally return to their occupation in three weeks. Infants left under these circumstances to the care often of little girls of seven, eight, or nine years old, and deprived of proper nursing, are but too likely to fall victims to disease and death" (Nos. 376, 386). (Grainger, Report: App. Pt. I. p. F 22, s. 206—214.)

The food of the Children and Young Persons engaged in the trades of Wolverhampton is often bad in quality, insufficient in quantity, and eaten in too hurried a manner. There is evidence that bad meat is constantly sold in the Wolverhampton market, on which these Young People are fed. The Sub-Commissioner

reports that "offal meat is continually bought by the small masters, who feed their apprentices with it; that cows, calves, sheep, and pigs, that die, no matter from what cause, are bought by butchers, and are sold in the market; and that there are butchers who deal exclusively in diseased meat. It is further stated in evidence that horse-flesh is often sold for beef-steaks, and that bad fish is frequently purchased for the use of the apprentices, producing bowel-complaints and other diseases" (Horne, Report: App. Pt. II. p. Q 29, ss. 309, 311, 312, 314). *Metal IVa:*
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These statements are borne out, among others, by the following witnesses:—Mr. Henry Nicholls Payne, Superintendent Registrar of Wolverhampton and Seisdon district, who says: "The food of the Children is not of a sufficiently good quality; inferior meat is often given them; calves which come prematurely into the world find a ready sale by candlelight in the markets, together with very bad beef of old cows which it was necessary to kill hastily, or which are sometimes dead before they come into the hands of the butcher; and all these are frequently purchased for apprenticed Children. This, of course, is not the case with all masters, some of them being careful to supply proper provisions—they would be disgusted at the meat which is thus purchased by so many" (Ibid. Evidence: App. Pt. II., p. q 2, l. 23).—Henry Hill, Esq., Magistrate: "Has held the office of acting county magistrate in the town of Wolverhampton twelve years. Knows that there is occasionally bad meat in the markets, especially that meat which is brought into the markets after dark on a Saturday night; and much of it was chiefly bought by the small masters for their apprentices. This is not done to such an extent now, as there are two meat-conners appointed. These meat-conners have often seized meat from the stalls, and burnt it in public—in the market-place. Has no doubt but that, when an animal dies, a butcher buys it and sells it. Alludes particularly to the veal from the dairy-farms of Cheshire" (Ibid. p. q 18, l. 55).—Miss Anne Ward: "Has been a housekeeper four years and a half in Wolverhampton; has noticed that the meat sold in the market was often very offensive indeed. Knows that a dead cow was sold to a butcher of the place by —; thinks it not an uncommon occurrence; many people here do not much object to it, either to buy or sell"—(Ibid. p. q 6, l. 35).—Mr.

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Paul Law: "Keeps the Star and Garter Hotel. Has kept it about sixteen years, and lived nearly thirty-seven years in the town of Wolverhampton. Is a judge of meat. Is well aware of the extremely bad meat often brought into the market, especially on Saturday nights. Knows that it was often bought for the use of poor apprentices. Knew a stock-lock manufacturer, some years ago, who had from 30 to 40 apprentices, and he often purchased bad meat, both beef and veal, for the food of these apprentices. The master used to boil the beef and veal together into a broth, which was so poor that the boys frequently complained to him; upon which he merely said to his wife, 'Broth 'em over again!' Calves which had been prematurely 'dropt' were brought in large numbers to this very house (the Star and Garter), and covered over with sheets in a stable. The manufacturers who had apprentices used to come to the stable to purchase this offal meat. The same thing is done still, though they are not brought to this house now. Sees the offal meat exposed for sale weekly. Is certain that it is purchased by some masters for their apprentices. Knows parties that buy it for this purpose—can mention their names. Should say that a dozen now do this; says it from his own knowledge; can safely say as many as a dozen. The meat they buy is a sort of carrion, quite unfit for human use. There are meat-conners, who ought to seize all this bad meat, and burn it, but they do not. The bad meat is chiefly that of premature calves, or of cows that have died of some disease, most commonly of diarrhoea. Sheep often drop dead in the fields, from a disease in the head, and are sold to certain butchers, who deal solely in diseased animals. Some of them sell horse-flesh steaks for beef-steaks. Can attest this as a fact; knows where it is still done repeatedly. Pigs are often smothered on the railway. Knows this because he keeps the railway station, where the pigs ought to arrive alive, and for which purpose he has a place built to receive them. Many of them arrive dead, and the owners wished him to provide the means of boiling water on the spot, so that they might dress the dead pigs at once, to look well for sale. Having refused, they are obliged to bring the pigs, dead as they are, into the town. The best-looking parts are sold in the market, and all the remainder is chopped up by a machine, and made into sausages and pies. Fish, which he knows has arrived four days in

the town, is bought by certain masters for their apprentices, in order to give them a change, by a treat of fish, as the masters call it. This is positively a fact: it may be laughed at, but not by those who eat it. Knows many boys who live upon this diet, who are wretchedly thin. Thinks their diet gives them a bowel-complaint. The colliers are all for good living, and so are the canal men, who all feed their boys well" (*Ibid.* p. q 23, l. 35). *Metal 17*
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In the evidence already adduced it has been seen that the Children and Young Persons in this district, and more especially the apprentices, constantly complain of not having food enough. "They are frequently fed," says the Sub-Commissioner, "especially during the winter season, on red-herrings, potatoes, bread with lard upon it, and have not always sufficient even of this." "Their living is poor; they have not enough to eat"—"Did not know what it was to have butchers' meat above once a-week; often a red-herring was divided between the two for dinner"—"The boys are often clammed (not enough to eat); have often been to his house to ask for a bit of pudding"—are frequent complaints. On the other hand, many of the Children state that they live in the same manner as their master and his family, and that they have always enough to eat.

In some trades, particularly in the casting-shops of foundries, in the shops in which general forge or smith's work is done, and in the shops of the small locksmiths, screw-makers, &c., there are no regular meal-hours, but the Children swallow their food as they can during their work, "often while noxious fumes or dust are flying about, and perhaps with noxious compositions on their unwashed hands."

Equal complaint is made of the insufficiency and wretchedness of their clothing. The general statement of all classes of witnesses is, that "the Children are very badly clothed; if they have a change suit, the pawnbroker is the wardrobe-keeper; no difference in their clothing summer and winter" (*Ibid.* p. q 1, l. 55). The Children themselves say that they never go to a Sunday-school because they have no proper clothes. "Should go to a Sunday-school, but does not like in such shoes as these" (*Ibid.* p. q 16, l. 43).—"Never goes to a Sunday-school; has no clothes but his working ones,"—"Never goes to school; has no

res. things to go in ; his father and mother cannot afford clothes for
r. him" (Ibid. p. *q* 15 et seq., Nos. 61, 70, 76, 78, 87 et seq.).—
m. "Badly clothed" is the frequent description of the Children
 personally examined by the Sub-Commissioner (Ibid. p. *q* 7,
 ll. 25, 37, 50).

Great numbers are very uncleanly in their persons, seldom washing themselves above once or twice a-week, and then, with the great majority, only their hands and faces. In some parts of the town the filthiness is so extreme as to be the obvious and constant source of disease (Ibid. Report : App. Pt. II., p. Q 12, s. 146).

In external appearance, few of the Children engaged in these trades are robust or well formed. Some who while at their work look strong, "on presenting themselves for examination, appear to have little general strength ; many are very delicate, some sickly, many ill-formed, meagre, and awry, with incipient malformation, and some few badly deformed, especially the girls" (Ibid. p. Q 12, s. 148).

In stature, the Children in general are so stunted that the Sub-Commissioner, during his first examinations, was unable to credit the statement they made of their ages : with very few exceptions, however, all were alike, and these few exceptions only proved the rule, for they were Young Persons who had not come to work till they were eleven or twelve years of age, or they lived comfortably with respectable parents, or they were not natives of Wolverhampton. Lads of fifteen and sixteen years of age are the size of ordinary English schoolboys of twelve and fourteen, but not as strong and healthy. Many of the manufacturing girls of fifteen, sixteen, and seventeen presented none of the external developments corresponding with commencing womanhood.

Accordingly, among the Children who came under the personal examination of the Sub-Commissioner, great numbers are described as "Very poorly grown indeed for his age" (Ibid. p. *q* 8, l. 8).—"A poor sickly little thing ; very little" (Ibid. p. *q* 10, l. 57).—"A very little boy for his age, with a head and face looking three times his age" (Ibid. p. *q* 11, l. 48 ; p. *q* 12, l. 42).—"A very poor weakly-looking creature" (Ibid. p. *q* 18, l. 42).—"Utterly stunted and deformed" (Ibid. p. *q* 8, l. 36).—"Growth utterly stunted" (Ibid. p. *q* 25, ll. 57, 62).—"Very

poorly grown, stunted, wretchedly thin" (Ibid. pp. *q* 26 et seq., *Metal* Nos. 121, 122, 134, 159, 162, 167 et seq.).

Among other witnesses, the Superintendent Registrar states that *Will:* in those trades particularly in which the work is by the piece the growth of the Children is injured; that in these cases more especially their strength is over-taxed for profit (Ibid. p. *q* 2, l. 21).—One of the constables of the town says that "there are examples without number in the place of deformed men and boys; their backs, or their legs, and often both, grow wrong—the backs grow out and the legs grow in at the knees—hump-backed and knock-kneed. There is most commonly only one leg turned in, —a K leg: it is occasioned by standing all day for years filing at a vice; the hind leg grows in—the leg that is hindermost. Thinks that among the adults of the working classes of Willenhall, whose work is all forging and filing, one-third of the number are ruptured. Some cannot afford to buy trusses, some get them by means of a club they have established" (Ibid. p. *q* 28, l. 54).

There are many instances of retarded puberty in both sexes: a lad, for example, seventeen years of age, is described as being very poorly grown, scarcely any signs of manhood in his appearance (Ibid. p. *q* 8, l. 9).—Another lad, eighteen years of age, is stated to be in stature and size dwarfed and meagre: no appearance of approaching manhood (Ibid. p. *q* 31, l. 13).—A girl, sixteen years of age, very small in stature; not the least appearance of approaching womanhood; quite a child (Ibid. p. *q* 14, l. 12).—A girl, aged nineteen, utterly stunted; no appearance of womanhood (Ibid. p. *q* 8, l. 37).

The chief diseases to which they are subject are curvature and distortion of the spine, deformity of the limbs, malformation of the pelvis, hernia, headache, dyspepsia, atrophy, and consumption (Ibid. Report: App. Pt. II., p. Q 14, ss. 160 et seq.).

Almost equally bad is the physical condition of the Children so *Sedg* extensively employed in nail-making at Sedgley and the neighbouring villages, which supply nails to the factors of Dudley and Wolverhampton, and which may be regarded as so many colonies for the express production of that particular article, almost the whole population of Upper Sedgley and Upper Gormal, and nearly one-half of the population of Coseley and Lower Gormal, being employed in nail-making. The nails are made at forges

as by the hammer, and these forges, which are the workshops, are usually at the backs of the wretched hovels in which the work-people reside. "The best kind of these forges," says Mr. Horne, "are little brick shops of about fifteen feet long and twelve feet wide, in which seven or eight individuals constantly work together, with no ventilation except the door, and two slits, or loop-holes, in the wall; but the great majority of these workplaces are very much smaller (about ten feet long by nine feet wide), filthily dirty, and, on looking in upon one of them when the fire is not lighted, presents the appearance of a dilapidated coal-hole or little black den." In these places Children are first put to labour from the ages of seven to eight, where they continue at work daily from six o'clock in the morning till seven or eight at night, and on weigh-days, the days the nails are taken to the factors, from three or four in the morning till nine at night. They gradually advance in the number of nails they are required to make per day till they arrive at the *stint* of 1000. A girl or boy of from ten to twelve years of age continually accomplishes this arduous task from day to day and week to week. Their food at the same time is in general insufficient, their clothing miserable, and the wretchedness of their dwellings almost unparalleled. "Throughout the long descent of the main roadway, or rather sludgeway, of Lower Gormal," says Mr. Horne, "and throughout the very long winding and straggling roadway of Coseley, I never saw one abode of a working family which had the least appearance of comfort or of wholesomeness, while the immense majority were of the most wretched and sty-like description." The effect of these unfavourable circumstances is greatly to injure the health of the Children and to stop their growth; and it is remarkable that the boys are more injured than the girls, because the girls are not put to work as early as the boys by two years or more: they appear to bear the heat of the forges better, and they sometimes even become strong by their work" (Ibid., Report: App. Pt. II., p. Q 74, ss. 739 et seq.; Evidence, Nos. 278, 274, 280, 268 et seq.)

In all the towns and villages of this district, in whatever occupations they are employed, some few of the Children, though short, are square-built, robust, active, and healthy.

The persons employed in the trades of Sheffield commonly

obtain food and clothing amply sufficient for health and warmth. Cleanliness is stated to be universally deficient. "Sheffield," says the Sub-Commissioner, "is one of the dirtiest and most smoky towns I ever saw. There are a quantity of small forges without high chimneys. The town is also very hilly, and the smoke ascends the streets, instead of leaving them. It is usual for Children to wash before they go to bed, but not universal, and their bodies imbibe continual dust and grime. One cannot be long in the town without experiencing the necessary inhalation of soot, which accumulates on the lungs, and its baneful effect is experienced by all who are not accustomed to it. There are, however, numbers of persons in Sheffield who think the smoke healthy" (Symons, Report: App. Pt. I., p. E 11, s. 93).

In external appearance the Children in Sheffield are undersized, but they do not appear to be sickly or ill-formed. Distortion is not common, though there are processes, such, for example, as screw-making, which tend to distort the body. "Altogether they appear a race who have suffered general physical deterioration from hard labour, from a smoky atmosphere, and also from intemperance; but generally speaking, I should say that these appearances are more observable in manhood than childhood" (Ibid. p. E 11, s. 89).

The amount of sickness in this district is decidedly greater than in the neighbouring country. Epidemic and endemic diseases are common and fatal, partly from the want of efficient drainage; but there are severe and fatal maladies commonly induced by certain occupations in which Children and Young Persons are employed. "Affections of the chest," says Dr. Harward, "are extensively induced by the operation, which requires pressing against the chest in order to drill. File-cutters are also an unhealthy race, arising from their habits of intemperance, and also in part from the constrained position in which they work. Bone-cutting induces headache and bilious complaints. Many Young Girls are employed in this who are remarkable for their chlorotic appearance" (Ibid. Evidence: App. Pt. I., p. e 12, l. 54).

Dr. Holland observes, "that the file-cutters are a stunted race of men, and very liable to bowel and stomach complaints; almost three out of four of the file-cutters who apply to him at the infirmary are labouring under these disorders. Is not aware that it

injuries the back or spine; if affections of this kind had been prevalent they would have come under his observation. The file-cutters die rather early. The girls who work at hair-seating are liable to pulmonary complaints, cough, difficulty of breathing, and many of the symptoms of consumption, of which they often die. Attributes these bad effects to confinement and the inhalation of fine dust" (Ibid. p. e 13, l. 9).

But the chief disease is that produced by the occupation of the grinder, which is the most pernicious of any branch of manufacture in England. The inhalation of the dust of the grindstone and of the steel of the knife, or whatever he may be grinding, is so pernicious, that the life of a dry-grinder scarcely averages thirty-five years, whilst that of a wet-grinder is seldom prolonged to more than forty-five years. The bent posture and pressure on the stomach aggravate the evil. Fork-grinding is the most pernicious, because it is done dry, and a great deal more of the steel has to be ground off. Dr. Knight states, that he cannot better express how injurious grinding is to the health than by stating that "they who are the greatest drinkers among the grinders are sometimes the longest lived, owing to their more frequent absence from their work." He refers to a paper on the subject published by him in the "North of England Medical Journal." After enumerating the great variety of articles ground at Sheffield, Dr. Knight says—"Some of these are ground on dry grindstones, others on wet grindstones; hence the grinders are divided into two classes, the dry and the wet grinders, and there is a third class who grind both wet and dry: altogether they amount to about 2500. Of this number about 150 (viz. 80 men and 70 boys) are *fork*-grinders; these grind dry, and die at from twenty-eight to thirty-two years of age; the razor-grinders grind both wet and dry, and they die at from forty to forty-five years of age. The table-knife grinders work on wet stones, and they live to be betwixt forty and fifty years of age." This was written nine years ago, since which time the number has increased, and the average duration of life has, according to other evidence, diminished. Dr. Knight proceeds to state that—"Those who are to be brought up grinders usually begin to work when they are about fourteen years old; there are, however, many exceptions to this custom, as the Children of grinders are frequently employed in the lighter branches of the trade

as early as eight or nine years of age. . . . Grinders who *Meta* have good constitutions seldom experience much inconvenience from their trade until they arrive at about twenty years of age; about that time the symptoms of their peculiar complaint begin to steal upon them: their breathing becomes more than usually embarrassed on slight exertion, particularly on going up stairs or ascending a hill; their shoulders are elevated in order to relieve their constant and increasing dyspnœa; they stoop forward, and appear to breathe most comfortably in that posture in which they are accustomed to sit at their work, viz., with their elbows resting on their knees. Their complexion assumes a dirty, muddy appearance. Their countenance indicates anxiety; they complain of a sense of tightness across the chest; their voice is rough and hoarse, their cough loud, and as if the air were driven through wooden tubes. They occasionally expectorate considerable quantities of dust, sometimes mixed up with mucus, at other times in globular or cylindrical masses, enveloped in a thin film of mucus. Hæmoptysis, inability to lie down, night-sweats, colliquative diarrhœa, extreme emaciation, together with all the usual symptoms of pulmonary consumption, at length carry them off, but not until they have lingered through months and even years of suffering, incapable of working so as to support either themselves or their families. Such is the usual progress of the grinders' asthma." He adds, "It is desirable that the public mind should be repeatedly impressed with this important truth, that all the attempts which have hitherto been made to prevent or to cure the grinders' asthma have utterly failed. So prodigal a waste of human life cannot be undeserving of the attention of our legislators" (Ibid. Report: App. Pt. I., p. E 5, s. 29. See Witnesses, Nos. 23, 24, 25, 26, 40).

Dust flues, in the state of perfection to which they have now been brought, appear to be capable of greatly diminishing, if not of entirely obviating the evil. Mr. Henry Cocker, needle-manufacturer, who has expended a large sum of money in perfecting these flues, states that those used by him almost cover the stone; that the needles are applied immediately beneath them; that scarcely a single particle of the dust can reach the grinder, and that he believes that if similar flues were erected at the Sheffield grinding-wheels the injury to health would be entirely obviated.

at Nares. His flues at first carried the dust into the open air, and he was
ieffield. twice indicted for the nuisance: it is now carried by means of
 long flues into a stream which runs past his works (*Ibid.*
 p. E 6, ss. 33, 34).

The Sheffield grinders cannot be induced to avail themselves of this security; they know that they are doomed to an early death, yet they are absolutely unwilling that the evil to which they are exposed should in any degree be lessened; they regard every precaution to prolong life with jealousy, as a means of increasing the supply of labour and lowering wages; they are for "a short life and a merry one," and hence even when the masters are at the expense of erecting the apparatus these men refuse to use it, and even frequently kick it down and break it under their feet. "Nothing," says Dr. Knight, "can exceed their recklessness of life; they frequently come to witness at about twenty-six or twenty-seven years old to get cured of the incipient symptoms of their complaint, and at this stage it is frequently relieved. On such occasions witness has often warned them, 'Now, if you go back to your trade you go back to die.' This, however, has never had any effect in deterring them from returning to it, or from apprenticing their children to the same fatal trade'" (*Ibid.* Evidence: App. Pt. I., p. e 12, l. 29).

ring'on. The Children in the Warrington district are poorly fed; the medical witnesses state that they are weak and sickly from insufficient food as well as from crowded and ill-ventilated rooms: a few of the children, when questioned, say that they have enough to eat, but more complain of hunger. Only one, out of all the number when the question was put, had a Sunday suit of clothes. They have no change for winter or summer. Though there is nothing in the manufacture itself, nor the place in which it is carried on, which need prevent it from being as clean as a drawing room, yet the Children are deplorable objects to look upon from the mud and dirt with which they are covered; the town itself being unusually black, "a heap of cinders covered with a cloud of smoke." The complexion of the Children is remarkably pale; they are, in general, of small size for their age; those following the occupation of pin-making "look ill, delicate, and feeble; thin; no muscle." The adults, in general, are of small stature. Chettleburgh, a private of the 12th Lancers, recruiting for the service, says, "He has had a great many offers, but none fit for

a lancer regiment ; five feet seven inches to five feet eleven inches ^{Metal /} is the height required, but the men who offered rarely exceeded five ^{Warril} feet five inches, or five feet six inches." The most prevalent diseases are atrophy and consumption (Austin, Report : App. Pt. II., p. M 13, ss. 86 et seq. ; Evidence, p. m 27, l. 58. Kennedy, Report : App. Pt. I., p. B 44, s. 303).

Of the Children employed in nail-making in Scotland, the ^{Scott} Sub-Commissioner, after describing " the exhausting labour of these infant slaves," states, " that they strongly evince the nature of their toil by their emaciated looks and stunted growth ; that they are clothed in apparel which few paupers would be found begging in ; that of these rags they have rarely any change ; and that it may fairly be said that they are starved into quickness at their work, as their meals depend on the quantity of work done" (Franks, Report : App. Pt. II., p. K 3, ss. 20-25). It is stated in evidence that the adult workmen, the masters to whom these wretched Children are apprenticed, can earn by full, hard work not more than from 7s. to 7s. 6d. a-week : it may, therefore, be well conceived that they are allowed but little food. One of these journeymen masters says, " Though like myself they work out their full strength, they scarcely repay the food they consume : " another witness says, " Now that meal and flesh are high they are starved ; " and the medical witness attests that they are " a greatly deteriorated race, exhibiting especially scrofulous diseases and premature old age" (Ibid. Report : App. Pt. II., p. K 4 ; Evidence, Nos. 159, 134, 146).

In the West of England, " the boys who polish heels and tips ^{Wes Engl} on the emery wheels are exposed to a fierce stream of sparks elicited by the friction, which fly directly at their faces, and would endanger their eyes most seriously if they did not protect them with shades of stout brown paper. None of them are known to have received any injury, and they all declared they were not incommoded by the vivid sparks, which appeared to be continually hitting the lower part of their faces. The boys in this employ seem to be a merry, active, and hearty set ; though I suspect them of using less soap and water than their compeers in the collieries : once a week, however, they must needs give themselves the benefit of a good washing, if only for the sake of not soiling their Sunday garments. Many of these boys struck me as little for their

fatal Warts. alleged ages ; but obstructed pores, from the accumulation of dust
West of oil, and metallic particles, which adhere thickly to their skin and
England. their clothes, must be unfavourable to a healthy development. Boys of a certain age are commonly slovens as regards personal cleanliness ; and these poor lads are, probably, allowed by their parents to remain as dirty as they please during the six working days, on the principle of its not being worth while to clean over night what is to be dirtied again in the morning."

"In the two principal pin manufactories which I visited, I observed no unhealthy appearances. Many of the girls are even remarkably blooming, and their persons and dress particularly clean and neat. I saw no curvature of the spine, or other deformity ; and, judging from their merry carolling whilst at their work, they do not feel oppressed by it. The posture of the headers at the improved benches is not more stooping than that of a sempstress ; and at Mr. Charleton's works, the ventilation of the rooms in which they work is made an object of special attention. I thought some improvement in the latter respect might be effected at the Soundwell works. The only part of the process in which I detected any chemical effluvia was in the pointing work-rooms, where nitric acid is used for cleaning the steel wheels on which the shanks are sharpened. No boys work at this branch, and none of the men reported that they had sustained any permanent injury, though they complained of the fumes sometimes affecting their stomachs, and of a metallic taste on their palates from the fine particles of brass-dust" (Waring, Report: App. Pt. II., p. O 3, ss. 37-42).

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The girls employed in the pin manufactories in the south of Ireland are all wretchedly clad: not half the younger ones have shoes; many, when questioned, stated that they have no clothes but those they had on, and they were poor indeed; others complained that they had not sufficient food: yet, notwithstanding their diet, rags, and scanty fare, these Children appeared to enjoy good health and excellent spirits (Roper, Report: App. Pt. II., p. G 9, s. 9).

North of
Ireland.

In the iron works in the north of Ireland the Children and Young Persons appear to be well and plentifully fed; they have all decent clothing, and indeed take a pride in being well dressed on a Sunday, and are more lightly clad in summer than in winter;

they are healthy and robust, and their physical condition in general is good. Nailers are worse off in all respects (Martin, Evidence: App. Pt. II., p. m 23 et seq., Nos. 54, 117, 171, 197 et seq.).

Metal Wre.
North
Ireland

Earthenware.

In some of the processes of this manufacture, as in those of painting, flower-making, moulding, figure-making, &c., in which the occupation is easy, and is carried on in airy, commodious, and warm apartments, the Children in general are well-fed, well-clothed, clean, and healthy.

*Earthe
ware.*
Stafford

In other departments, not only is the work most laborious and exhausting, but the Children employed in this severer labour obtain neither sufficient food nor decent clothing. Such statements as the following are constantly made:—"Don't get enough to eat and drink; gets mostly dry 'tatoes and salt; had no dinner to-day; never gets meat, never gets bread; never goes to school; hasn't no clothes." "Got nothing at all to-day for dinner; they don't at home get a dinner any day; what I chiefly get is 'tatoes and salt, and sometimes bread." "This is all the clothes I got; no change at home for Sunday" (Scriven, Evidence: App. Pt. I., p. c 4, l. 37; p. c 5, l. 56; p. c 2, l. 34 et seq.). The great majority of the Children, however, in all the branches of this manufacture, state that they have enough to eat, and most of them appear to have a Sunday suit of clothes.

Among the Children whose physical condition is universally deteriorated by their occupation are those called mould-runners, who receive on a mould the ware as it is formed by the workmen, and carry it to the stove-room, where both mould and ware are arranged on shelves to dry; the same Children liberating the mould when sufficiently dry, and carrying it back to receive a fresh supply of ware to be in like manner deposited on the shelves. They are, moreover, generally required by the workmen "to wedge their clay;" that is, to lift up large lumps of clay, which are to be thrown down forcibly on a hard surface to free the clay from air, and to render it more compact. Excepting when thus engaged, they are incessantly "on the run" from morning till night, always carrying a considerable weight; and the oppressiveness of their labour is, of course, greatly increased by the high temperature in which it is carried on. With scarcely a single

exception the Children thus employed are pale, thin, stunted in growth, weak, and unhealthy; most of them suffer from sickness of stomach, vomiting, and other disorders of the digestive organs, and great numbers of them die from atrophy and consumption.

Almost equally thin, weak, and stunted in their growth are the boys called jiggers, so called from the name of the wheel (the jigger) which it is their business constantly to turn.

Certain branches of this manufacture are in their own nature most pernicious to all employed in them, whether Children or adults, such as dipping, ground-laying, scouring, &c. It has been already stated that among other ingredients contained in the liquor in which the ware is dipped are large quantities of lead, and frequently a considerable quantity of arsenic; that the hands of the Children are always wet with this liquor, and that their clothes are saturated with it, while by constant handling the men's fingers become smooth, and are often denuded of cuticle, and sometimes even bleed—a state of the skin which greatly facilitates the process of absorption. The ordinary effects on the Children are severe pain and great disorder of the stomach and bowels, obstinate constipation, often ending in colic, but most commonly epilepsy, and not unfrequently consumption; while the men suffer most from partial paralysis of the extensors of the fingers, colica pictonum, and paralysis of the limbs. Witnesses say:—"In holding the rough biscuit-ware between my fingers it denudes them of the skin, and makes them delicate, and even raw at times, when they bleed; I should think that the lead by this means is more rapidly absorbed. I have known boys suffer very much from this work; I knew two cases of fits and death to have resulted in boys working with me. I think Children ought not to work here; the material is bad to work in, and the work is laborious as well" (Ibid. p. c 27, l. 33).—"I was a dipper's boy for two years, and used to carry the ware backwards and forwards to the dipping-tub and biscuit-oven; my hands were always wet with the liquid; it used to disagree with my bowels very much. I was going to work one morning, as I thought pretty well, but was taken with a giddiness in my head, and felt as though I was going to fall down; I found my way back home; my mother sent for the doctor, but before he came I had a bad fit, and was confined to my bed two months; I have had fits since; have fits now

every day; have sometimes ten or twenty. My right side is useless to me. They tell me I shall never recover the use of my limbs" (Ibid. p. c 21, l. 40).—"We have two dipping-houses,st and four men and eleven boys working in them; all these men have been afflicted with cramp and pains; some of the boys are taken in fits sometimes" (Ibid. p. c 10, l. 13).—"They get their limbs drawn, and lose the use of them; have known persons die from it; the last man that was at this tub did" (Ibid. p. c 6, l. 40).—"When I was young I used to be sick and bad, but when I got older I had several attacks of obstruction of the bowels, and was affected in the head as if I was going out of my mind. I had a brother in the dipping-house who was afflicted with fits, and lost his senses first, and then his life. I have known other bad cases. I am a father of a family; have three daughters; if I had a son I would not bring him to the dipping-tub, because I would rather that he should live. When I worked at Bristol I knew four cases of death in the dipping-house" (Ibid. p. c 45, l. 35).

The air of the rooms in which the process of scouring is carried on is filled with finely-pulverized flint, the inhalation of which is nearly as fatal as that of the grinding-stones of Sheffield. "Not many scourers live long; we all feel overloaded upon the chest, and cough very much" (Ibid. p. c 6, l. 25). "I am stuffed up at my chest; I cannot lie down at night; my throat is always sore; and I have a constant cough, with difficulty of breathing" (Sub-Commissioner).—"This woman's voice is scarcely audible; she is suffering in common with many others at this work" (Ibid. p. c. 11, l. 32).—"Every one that works in this place suffers from coughs; we are all stuffed up; we have known a great many deaths from it" (Ibid. p. c 17, l. 53).

Glass.

The severity of the labour, the almost constant night-work, the short intervals for sleep, the irregular meal-hours, and the intense heat of the place of work, render the occupations of the glass-house extremely injurious to Children and Young Persons. In some of the districts, as in Lancashire, the adults are said to be "strong, tall, well-grown, and healthy men" (Austin, Report: App. Pt. II., p. M 36, ss. 230 et seq.) In the West of England, likewise, in the Nailsea Glass-works, it is stated that "all the

Glass.

men who are engaged in the very hottest departments are remarkably healthy;" that one of the "head founders" (working in a temperature varying from 300° to 330° Fahrenheit) "is now about seventy years of age, and is still healthy, although he has been engaged in the arduous duties of the founders' oven nearly fifty years" (Stewart, Evidence: App. Pt. I., p. d 49, l. 14). It is, however, generally admitted that Young People cannot bear this kind of work, and that it acts most injuriously on the youngest hands, who are generally pale, thin, ill-grown, and unhealthy, suffering severely from bad eyes, and stomachic, bronchial, and rheumatic affections. "Scarcely any are well grown for their age" (Horne, Report: App. Pt. II., p. Q 91, s. 872).—"A marked paleness of visage prevails among the boys in glass-houses, attributable to the temperature, the unseasonableness of the hours of labour, and its duration; the eyes of many are blood-shot; 'nearly blind for weeks together;' 'he constantly had sore eyes since he was at this glass-house:' others suffer severely from nausea, vomiting, coughs, colds, and rheumatic affections" (Leischild, Report: App. Pt. II. p. L 2, ss. 11, 12).—"The Children bore the appearance of great exhaustion and sickliness: even the superior processes of this manufacture, in which adults are employed, are known to be very trying to the constitution of the workmen, whether engaged at the furnaces or as glass-blowers, who generally die of debility and asthma at very early ages" (Franks, Report: App. Pt. II., p. K 7, s. 48).—"From his experience he thinks the community has no idea of what a boy at a bottle-work goes through; 'it never would be allowed if it were known;' he knows himself he has been carried home from fair fatigue, and on two several occasions, when laid in bed, could not rest, and had to be taken out and laid on the floor. These boys begin work on Sabbath evenings at ten o'clock, and are not home again till between one and three on Monday afternoon. The drawing the bottles out of the arches is a work which no Child should be allowed, on any consideration, to do; he himself has been obliged several times to have planks put in to walk on, which have caught fire under the feet; and a woollen cap over the ears, and always mits on the hands, and a boy cannot generally stop in them above five minutes. There is no man that works in a bottle-work but will corroborate the statement that such work

checks the growth of the body; the irregularity and the unnatural times of work cause the boys and men to feel in a sort of stupor or dulness from heavy sweats and irregular hours. The boys work harder than any man in the works; all will allow that. From their experience of the bad effect on the health, witness and five others left the work, and none but one ever went to a bottle-work after" (Tancred, Evidence: App. Pt. II., p. 176, l. 48. See also Witness, No. 159).

Class.
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Machine-Lace.

"Many of the Children employed in this manufacture in the Nottingham, Derby, and Leicester districts have insufficient food, subsisting commonly on nothing but bread and tea, and having no animal food for one or two months together. Great numbers are very poorly clad; some were found in rags even in winter. A very general inattention to cleanliness prevails; nor do the employers, with a very few exceptions, take any trouble or make any provision in this respect (Grainger, Report: App. Pt. I., p. F 9, s. 71).

*Machine
Lace*
Nottingham
Derby,
Leicester

"From the nature of their occupation, the long and irregular hours of work, the frequency of night-work, and the insufficient time allowed for meals,—an evil of the greatest magnitude in the case of growing children,—the constitution is frequently seriously impaired. "The majority of the Children whom I saw," says the Sub-Commissioner, "were pale and unhealthy-looking, and several were of diminutive stature. The health and sight are often greatly impaired, especially among the runners, who occasionally faint whilst at work; indeed there cannot be an occupation which more seriously deteriorates the constitution. Short-sightedness, amaurosis, distortion of the spine, excessive constitutional debility, indigestion, and derangement of the uterine functions, may be said to be almost universal: all the evidence points to this conclusion." (See Nos. 23, 25, 30, 164, 173, 174, 175, &c.)

"Those who have for any length of time been runners become totally unfitted for other manufacturing labour (see Nos. 27, 30*, 189), and even common household work and the discharge of domestic duties (see Nos. 25, 152, 164). It thus happens that those who have been so unfortunate as to have been placed at

embroidering, perhaps at the early age of six, are doomed, from the difficulty of obtaining less laborious and more profitable employment, to continue the work as long as they can see to perform it" (Ibid. s. 87 et seq.).

The general tenor of the evidence given by the several classes of witnesses is to the following effect: "The Children are usually sickly and delicate, the constrained position and the stooping confining the chest and preventing the proper growth of the body" (Ibid. Evidence: App. Pt. I. p. f 87, l. 36).—"The Children who are drawers, runners, &c., are very delicate and sickly-looking. If they are well when they go to work, in a year or two they become thin. Many mothers have told witness their hearts ache to send their children to work at such an early age, and for such long hours" (Ibid. p. f 36, l. 71).—"Children entering upon the course described at the age of eight, and often as early as four years of age, and for years never being in bed before ten, and more frequently later, must suffer in their constitution and development. The employment of these Children is such that they have neither the opportunity of having exercise nor access to the free air" (Ibid. p. f 48, l. 1). "They suffer, as far as a non-professional person can judge, from scrofula, indigestion, and defective eyesight; and as regards females of the adult age, complaints of ill health, difficult labours, and miscarriages are general. Among lace-runners distortion of the spine is almost universal, producing a perceptible inequality of the two shoulders" (Ibid. p. f 47, l. 70).—"Knows that it is common for those who have been at the work to become so weakly that they cannot afterwards get profitable employment; they cannot become housemaids, or anything requiring exertion, so that they have to continue at the work as long as they can; they are often distorted in the body, so that it is considered a 'lace-runner' can be known by her walk" (Ibid. p. f 5, l. 64).—"The work generally causes deformity of the spine and shoulder, so that he could tell a 'lace-runner' by her walk. The general health is also affected, owing to the sedentary employment, and to the confined position in which they are obliged to sit for so many hours consecutively" (Ibid. p. f 36, l. 38).

The medical witnesses state that the general health is greatly deteriorated; that the Children are pale, thin, delicate, feeble,

stunted in growth, more than usually susceptible to certain formidable diseases, and much less able than common to resist the ordinary causes of disease. The prevailing complaints are general weakness, often amounting to fainting, pains in the head, side, back, and loins, palpitation, sickness, vomiting, and loss of appetite, curvature of the spine, scrofula, and consumption. The female health, in particular, appears to be constantly and grievously disturbed (*Ibid.* p. f 54; Nos. 173, 175, 176, 177, et seq.).

*Machins-
Lace.*
Nottingham,
Derby, and
Leicester.

A vast mass of evidence has been collected as to the tendency of one particular occupation, namely, that of threading, in which great numbers of Children are employed, to injure the sight; of which the Sub-Commissioner gives the following summary.

"As very contradictory reports have been given of the effects of threading upon the sight, I paid especial attention to this subject, never omitting to inquire of the Children what was the actual influence upon their eyes. A part of this discrepancy of opinion depends on the fact, which is not generally understood even by those who have attended to this point, that there is one kind of bobbin which strains the eyes more than those commonly employed. A fair sample of the information I received is contained in the evidence taken at Messrs. Boden and Morley's and at Messrs. Fisher's. My conclusions upon this point are—

1. That in every species of bobbin the constant use of the eyes is required, as threading cannot be performed by the fingers alone.
2. That in the great majority of cases the eyes are at the time more or less injuriously affected, indicated by watering, smarting, dazzling, and ocular spectra.
3. That, with a few exceptions, the eyesight is not permanently injured" (*Ibid.* Report: App. Pt. I., p. F 9, s. 69). For the medical evidence relating to this subject, see Witnesses, Nos. 173, 176, 177.

The threader-boys, at the Newport factory, are described as suffering from headache generally two or three times a-week, and as not presenting the aspect of health, though taken from among the country Children of the neighbourhood (Fletcher, Evidence: App. Pt. II., p. r 4, l. 60).

Pillow-Lace.

In Northamptonshire, Oxfordshire, Bedfordshire, and Buckinghamshire, the Children and Young Persons employed in pillow-lace making are poorly fed, seldom getting animal food; their

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usual statement being—"Don't get meat every day, a bit of a Sunday sometimes" (No. 293). "Haven't much food; meat about twice a-week, other days potatoes, or bread and butter" (No. 310). "We live very hard; have meat only once a-week" (No. 302; Burns, Report: App. Pt. I., p. A 13, s. 106). In general they are neatly clad; on Sundays and holidays very gaily. "The day of my arrival," says the Sub-Commissioner, "being a fair-day, I saw them in their best attire, and very gaily dressed they all were, old and young, but their fondness for dress is proverbial" (Ibid., p. A 13, s. 107).

All accounts agree in representing the occupation of lace-making in these districts as highly injurious to those engaged in it. The heavy pillows used by the Children oblige them to work in a constrained posture; their employment is wholly sedentary, and they work in small, crowded, and ill-ventilated rooms. The health of the majority of the Children is impaired, says one of the surgeons, by the practice of working together in small, crowded, and ill-ventilated apartments, and the evil is increased by the habit which the young girls have contracted of wearing a strong wooden busk in their stays to support them when stooping over their pillow-laces: this, being worn when young, while the bones are yet soft, acts very injuriously on the sternum and ribs, causing great contraction of the chest. Mr. Collier, surgeon, states that he measured several of these girls, and found the chest so much narrowed, that they were considerably broader across the shoulders than across the breast; that they cannot be induced to leave off the busk and elevate the cushion, and that great numbers of them ultimately die of consumption, the most common and mortal disease of the district, previously suffering under the severest forms of dyspepsia, which indeed is common to all the Children employed in the manufacture of pillow-lace, the consequence of their long confinement in impure air (Ibid., p. A 12, s. 103).

Hosiery.

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Of the physical condition of the Children and Young Persons engaged in this employment, the Sub-Commissioner reports that "the long hours of work which are exacted from the mechanics of all ages in this trade, joined to the sedentary nature of the occupation and the strain upon the eyes, usually cause the general

health to be impaired and the sight to be seriously injured. The stockingers who go on so late at night require a strong light to watch the progress of the work, as there are some hundred needles in a frame, all of which require to be looked at every course, of which about ten are made in a minute. For this purpose it is the common custom to use a large glass globe filled with water, which, being placed in front of a lamp, acts as a lens, and so condenses the light. Spectacles are commonly required at forty.”

Hosiery.
Nottingham
shire,
Derbyshire
and
Leicester
shire.

“As regards the Children, usually girls, who seam and cheven, it may be stated that their health and constitution are usually seriously deteriorated. It is common for them to begin to work at the very early age of six, seven, and eight, and they are occupied in small and close rooms from ten to twelve hours a day, exclusive of meals, during which time they are neither allowed to move nor speak. With such incessant toil, and under such circumstances, it is not a matter of surprise that cheveners should faint at their work, that they should become so weak as to be unfitted for any active occupation, or that they should become so near-sighted as not to be able to see the clock across the room” (Nos. 276, 286).

Where Children work together in any considerable numbers, as at Belper, it is not unusual to see one or two with spectacles; and I have found, on examining the eyes, that they were often suffused and in a state of slight inflammation (p. 99). Many presented the marks indicative of a scrofulous constitution, and a more limited number the external signs of that disease, such as enlarged glands, scrofulous inflammation of the eyes, &c. The present sufferings to which cheveners, like the lace-runners, are subject, are not the only evils of their lot; they become, to a great extent, disqualified for discharging the duties of wives and mothers in consequence of their debilitated frames being unequal to the efficient performance of common household work. From the same cause they find a difficulty or impossibility in procuring other and more profitable employment, manufacturers objecting to take females who have been in this occupation (No. 276). The toil to which these poor Children—infants some of them might almost be termed—are subject is altogether disgraceful in a Christian country. All this prolonged and exhausting labour

Hosiery. has led to no beneficial result, for all parties stated to me that
 Nottingham- "for some years the hours have become longer and the wages
 shire, less" (No. 264). Those best qualified to form an opinion on
 Derbyshire, this subject, the small mistresses who employ these Children, are,
 and as a body, anxious that something should be done to protect
 Leicester- them, and those whose evidence is given think that restrictions
 shire. such as those of the present Factory Act would neither seriously
 interfere with the business, nor, with a few exceptions, cause
 distress among the manufacturing population (Nos. 263, 264).
 (Grainger, Report: App. Pt. I., p. F 15, ss. 132, 133, 134, 135,
 136, 137, 141, 142).

Calico-Printing.

Calico- Printing.

In the English districts the Children engaged in calico-printing are generally well fed and clothed; in Scotland, on the contrary, the food is poor, and the clothing in many cases wretched; and in Ireland, while the food is good, the clothing is miserable. The employment itself does not appear to produce any peculiar bodily disease, nor, with some few exceptions, any painful degree of fatigue; but the Young People are pale and stunted, though commonly active, intelligent, and cheerful.

Lancashire, Cheshire, and Derbyshire; and the Neighbour- hood of London.

In the neighbourhood of London they are described as being remarkably stout and healthy, and in Lancashire, Cheshire, and Derbyshire they are stated to be sprightly and active, and though not as large in stature as the Children in agricultural districts, more quick and intelligent. "Stout, healthy-looking boys, and their naked legs generally well-moulded and muscular" (Burns, Report: App. Pt. I., p. A 8, s. 63. Kennedy, Report: App. Pt. I., p. B 20, s. 152. Austin, Evidence: App. Pt. II., p. m 72, l. 12).

Scotland.

Among the poorer classes engaged in this occupation in Scotland the Children are so badly off that in one place, Kilmarnock, they actually beg about the streets during the meal-hours. But in general the food, though poor in quality, does not appear to be deficient in quantity; and in great numbers of instances the Children are "respectably attired." "They generally," says the Sub-Commissioner, "wear no shoes or stockings except in the depth of winter, which, to an Englishman, appears a sign of poverty, but in reality is adopted from choice. The teerers, as

well as the girls employed in stoves, the grounders, &c., often expose themselves, without sufficient additional clothing, to sudden change from the heat of their place of work to the external air. They are commonly pale, delicate, and undersized" (Tancred, Report: App. Pt. II., p. I 19, ss. 74, 75, 72). Cali
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The Children engaged in this employment in Ireland are decidedly better fed than those who follow no occupation, and in general look well, healthy, and happy (Roper, Report: App. Pt. II., p. G 1, s. 7; p. G 9, s. 9; p. G 13, s. 5). Ireia

Paper-Making.

The Children and Young Persons employed in the paper-mills in Kent, Bucks, and Herts, are generally well fed and clothed; in Bucks and Herts there is a slight inferiority as to neatness, but in all these districts the health is good. "The Children," says the Sub-Commissioner, "are not so bronzed, perhaps, as those in agricultural work, but in no other respects inferior in bodily condition. As my inquiries everywhere excited some alarm among the parents, who seemed afraid that I might be the means of putting a stop to Children being employed, their testimony of its comparative healthiness may be questioned as to its impartiality; they one and all said that paper-making was as healthy as any other labour. At the outset of my inquiry, and before any alarm was excited, I took the evidence of a very intelligent journeyman, who says—'I have two sons, one employed in the mills, the other in out-door employment, and I can see no difference in their state of health or constitution.' I did not see one instance of any peculiar disease or deformity" (Burns, Report: App. Pt. I., p. A 5, s. 35; Evidence, p. a 3, l. 10). Pap.
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In the other districts much complaint is made of the dust of the rag-cutting rooms, the inhalation of which materially affects the health. Several of the witnesses give evidence similar to that of a girl eleven years old, who says, "The dust hurts her very much; when there is a vast of dust has very often to go home. Last week was obliged to go home on account of the dust. Not very long since had to bide at home two or three days from the dust. It makes her sick, and sometimes throw up her victuals when she gets home. Almost every day she has a headache from the dust; now and then has a slight cough from the dust. Some-

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times it gets over her victuals, and she only takes a bite or two, and then throws the rest away. Some of the girls cannot eat their victuals for the dust." The proprietors also state that "they have known some of the females in the rag-dressing shop turn faint and sickish, and in some cases, though not often, faint away;" while some of the medical witnesses distinctly state that "it gives rise to asthma, consumption, and other diseases of the like character" (Leifchild, Report: App. Pt. II., p. L 4, s. 32. Kennedy, Report: App. Pt. I., p. B 43, s. 302. Austin, Report: App. Pt. II., p. M 67, s. 360. Franks, Report: App. Pt. II., p. K 1, s. 2; Evidence, No. 31: p. k 6; l. 15).

Draw-boy Weaving.

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Some of the Children engaged in this employment at Kidderminster state, that they generally have meat once a week, on the Sunday, and now and then two or three times a week, and these Young People appear to be decently clothed; but others are described as being "in tatters," and having no change of clothes for the Sunday, and the account they give of their food is as follows:—"I get coffee and bread and butter or lard for breakfast, and taties for dinner, sometimes a bit of beefsteak, perhaps half a pound for seven of us, father, mother, and five children" (Scriven, Evidence: App. Pt. I., p. c 110, l. 52). "I had dry bread this morning for breakfast, and taties and salt for dinner. I never gets no tea. I have had nothing since one o'clock ('tis now ten o'clock); I might have a bit of bread when I get home; my brothers and sisters live as hard as I do; my father and mother harder than either; they try to save as much as they can for we, 'cause we works" (Ibid. p. c 108, l. 35). "When I have done work I am very tired; when we fall I am hardly able to crawl along the streets to get home, and sometimes I go without food all the morning. Sometimes for breakfast I get a bit of toast, or a bit of dry bread; for dinner we have nothing but taties and salt, at others a quarter of a pound of bacon amongst us, and sometimes nothing at all; we have often to go without dinner and tea too" (Ibid. p. c 110, l. 23). With this scanty and unnutritious food these witnesses state that oftentimes they "work up to ten o'clock on Friday night, and then go to bed till twelve o'clock, then get up again and work all night, and up to Saturday evening, after work-

ing all the rest of the week before very hard" (Ibid. p. c 108, l. 46). "This early slavery," says one of the medical witnesses, "by affecting the health of the young of both sexes, has a baneful effect upon them in after life: consumption, diseases of the joints, and ruptures are of frequent occurrence; and, in short, the majority of attacks are of a low cachectic character; and the mortality among Children at an early age is alarmingly great" (Ibid. Report: App. Pt. I., p. C 28, l. 22).

It is stated that in Scotland the Children employed at drawing have neither the quality nor the quantity of food adequate to support the health and strength of growing Children at constant labour; that they are even worse off than the Children in the neighbourhood who do no work; that they are in general ill-clothed, no difference being made in their clothing in winter and summer, although the draw-boys are encouraged to be neat and cleanly in their persons, because if their hands are not clean they soon spoil the "simple;" that if not robust they are not unhealthy; and that, though they are not as tall as the Children of the same age in the same neighbourhood who are not put to labour, yet that when adult no difference is visible in regard to stature between them and their neighbours (Fancred, Report: App. Pt. II. p. I 34, s. 140).

Tobacco Manufactures.

The tobacco-spinning appears to employ, in all the large towns ^M in which it is carried on, the Children of the most wretched class of the population, the factories being sometimes contiguous to their abodes. Thus, of the Children so employed at Glasgow, the Sub-Commissioner reports that "the physical condition of poor Children, who ought to be in a workhouse, needs not any particular description. Nakedness, hunger, shortness of stature, filth, scrofulous tumours, all combine to render their youth the prelude to a vicious and wretched manhood. Without affecting particular sensibility, I must say that no man of ordinary feeling could pass down the Trongate last winter, with the snow frozen fast to the pavement, and meeting the cutting, piercing east wind, without his heart aching at the sights he saw. Scores of Children of both sexes were to be seen, in groups of two or three, scuffling along the snowy streets, with feet either quite naked or only protected

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by the remnant of a slipper, and mere rags over the rest of the body; the boys often without hats, and the girls with a sort of *mantilla*, consisting of a coarse bit of sackcloth hung over their heads and held together beneath the chin, sometimes clothed in a large woman's gown cut short, with the original sleeves like bags on each side. The wind showed the lightness of the garments worn by others, and the ease with which it could pierce to their very bones. The abode of such specimens of the population could easily be guessed. They belong to the neighbourhood of the tobacco-works. * * * It is evident that to Children so circumstanced the employment in a tobacco manufactory must be an object of ambition. They are there at least sheltered from the elements and kept warm for several hours a day. In the other towns where tobacco manufactories are carried on, though on a much smaller scale, I heard a much better account of the boys employed, both as related to their moral and physical condition" (Tancred, Report, ss. 169, 174: App. Pt. II., pp. I 43, 46). (*Second Report*, pp. 100-14).

Millinery and Dress-making in London.

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Food.

In some establishments care is taken by the employers to provide good and sufficient food, and the Young People regularly take their meals with the family, and fare in all respects like its members. Amongst others, the following employers state,—“ She has always paid attention to the diet of the Young Persons; the best meat is provided; the food is varied by fish, &c. Thinks it is very necessary in such a sedentary occupation that the diet should be particularly studied. The Young Persons have their meals with witness” (Ibid. p. f 221, l. 32). “ Thinks that, as many come from the country, and are thus removed from the care of their relations, it is her duty to attend to their comfort” (Ibid. p. f 223, l. 36). “ The best meat is provided; they have also soup and puddings twice or thrice a-week; the dinner is taken with her younger sister” (No. 594). “ The dinner is taken with the family” (No. 571). “ Witness's sister and the other partner always have their meals with the Young Persons, except tea and supper” (No. 566). These statements are fully confirmed by the evidence of the Young People themselves, who say that “ Every-

thing is of the best" (Ibid. p. f221, l. 9); "and that they have ¹ abundance of the nicest food" (Ibid. p. f222, l. 35).

This, however, is by no means uniformly the case, for all classes of witnesses state that the food in many establishments is coarse in quality and insufficient in quantity. One employer says—"To witness's knowledge the food in many houses is very plain, or rather coarse. Salt boiled beef is frequently used. The food is of so coarse a kind that the young women, being usually in a delicate state of health, have no appetite for it, and consequently they often do not have sufficient to support their strength" (Ibid. p. f224, l. 7). Another states that "In some establishments the food is insufficient in quantity and inferior in quality; salt beef is frequently used and hard puddings. Has been obliged to buy food in consequence of the insufficient allowance, and has known others who have been obliged to do the same" (Ibid. p. f205, l. 35). A third adds,—“In the same houses where witness has been the supper usually consisted of bread and cheese, the latter of which was sometimes very bad and scarcely eatable. The beer was so bad, that most of the Young Persons took water in preference.”

Mr. Devonald, surgeon, says,—“They lose their appetite, and when from this cause they require good and varied diet, they are frequently provided only with coarse, and therefore improper food. They are mostly fed upon cold mutton, which frequently they cannot eat: bread and cheese are often provided for supper. The only things they can take are tea and bread and butter; and on these many of the Young Persons principally live” (Ibid. p. f236, l. 24). One of the Young People, A. Z., says,—“The food is very insufficient in quality and quantity. Although there are 65 persons to dine, there is often only one piece of meat—a leg of mutton, a leg of pork, or a piece of beef: would make an affidavit of this if required. The only vegetables are potatoes, and those so small in quantity that they have only one for each person. They are not stinted as to bread and butter at other meals. However late they work at night, there is no refreshment after 9 p.m. It is very common for the Young Persons to buy food for themselves” (Ibid. p. f226, l. 1).

In order to save the expense of providing them with food on Sunday, some proprietors render the house very uncomfortable to

as their Young People, and others positively refuse to provide dinner for them on that day, unless it should happen to be a day on which they are required to work. "Knows that there are several houses in London in which no meals are allowed on Sunday after breakfast: it is expected that they should obtain a dinner from their friends. Knows a Young Person who walked about the streets all day in consequence of being denied a dinner at her employer's. No exception is made in favour of those who have no friends in London" (Ibid. p. f 207, l. 33). "Has black looks for dining at the house on Sunday; it is considered a great favour" (Ibid. p. f 208, l. 66). "Would think it a very cruel thing if a dinner and home were not provided on Sunday. There are many places where this is not the case" (Ibid. p. f 223, l. 38). "Would think it a very great sin if any parties should not provide good and sufficient food; and especially, considering that these Young Persons have often no friends in London, it would be unjust, and likely to lead to vice, if a dinner was not provided on Sunday" (Ibid. p. f 216, l. 41). "Thinks that, if the Young Persons have no friends in town, it would be very injurious if they were not provided with dinner and a home on Sundays" (Ibid. p. f 222, l. 48).

The employers and the Young People themselves alike affirm that the effect of their employment thus pursued on the health is most injurious. One proprietor says,—“The effects upon the health are lassitude, debility, loss of appetite, pain in the back, shoulders, and loins; should think there is not one in twenty who does not suffer from this. Indigestion is very common. Pulmonary affections, such as cough and tightness in the breath, are also frequent. Headache is very common; ‘You would never be in a work-room half an hour without some one complaining of that’” (Ibid. p. f 205, l. 51).

Another affirms, “The health in nine cases out of ten is injured. Of those known to witness, who have been for any time in the business, most have their health impaired in some form or other. Severe headache, indigestion, pain in the side and back, swelling of the feet and legs, and other complaints, are most common; ‘it brings on all manner of complaints to which females can be subject.’ In Young Persons or apprentices distortion of the back and projection of one shoulder are very common. The sight is often affected, ‘it is sure to be so in course of time.’ Has frequently

heard of young women in this business dying of consumption. Is certain that the laborious employment to which so many Young Persons are subject at the most important epoch of life leads to most injurious results afterwards" (Ibid. p. f 206, l. 53).—M. D., describing the effects on herself, says, "In consequence of the severe labour witness underwent at Mrs. ———'s, her health became seriously affected, and she was entirely from this cause obliged to remain at home two years. She became extremely thin, and has never recovered flesh. Her sight was seriously injured, and has never been good since: at this time suffers very much from her eyes; if she works after nine at night they become red and much swollen, and the tears scald dreadfully. When she went home from Birmingham she could not sleep for several nights; for two or three months she lay on the bed and could scarcely sleep at all, so that when her mother came she said her eyes were always open. Thought herself she would never recover; she had lost all strength, and her spirits were quite sunk'" (Ibid. p. f 209, l. 23).

Millinery
Dress-Making
in London
Physical
Condition

The correctness of these representations is confirmed, among others, by the following medical witnesses:—Sir James Clark, Bart., Physician to the Queen: "I have found the mode of life of these poor girls such as no constitution could long bear. Worked from six in the morning till twelve at night, with the exception of the short intervals allowed for their meals, in close rooms, and passing the few hours allowed for rest in still more close and crowded apartments;—a mode of life more completely calculated to destroy human health could scarcely be contrived, and this at a period of life when exercise in the open air, and a due proportion of rest, are essential to the development of the system. Judging from what I have observed and heard, I scarcely believe that the system adopted in our worst-regulated manufactories can be so destructive of health as the life of the young dress-maker; and I have long been most anxious to see something done to rescue these unfortunate girls from the slavery to which they are subjected" (Ibid. p. f 232, l. 36).

Dr. Hamilton Roe, physician to the Westminster Hospital: "Their most common complaints are great constitutional weakness, indicated by that degree of pallor which only arises in other cases from the abstraction of a large quantity of blood, pulmonary

consumption, loss of appetite, pain in the side, headache, emaciation, and extreme disturbance of the uterine functions" (Ibid. p. f 233, l. 24).

Dr. Hodgkin: "They exhibit extreme cases of those distressing nervous, hysteric, and dyspeptic affections which the worst debilitating causes can induce" (Ibid. p. f 233, l. 54).

John Dalrymple, Esq., assistant-surgeon, Royal London Ophthalmic Hospital, after giving a minute account of the manner in which the general health of great numbers of these young people becomes utterly destroyed, and more especially in which all forms of ocular disease are induced, "from simple irritation to complete blindness," adds the following illustration: "A delicate and beautiful young woman, an orphan, applied at the hospital for very defective vision, and her symptoms were precisely as just described. Upon inquiry it was ascertained that she had been apprenticed to a milliner, and was in her last year of indentureship. Her working hours were eighteen in the day, occasionally even more; her meals snatched with scarcely an interval of a few minutes from work, and her general health was evidently assuming a tendency to consumption. An appeal was made, by my directions, to her mistress for relaxation; but the reply was, that in this last year of her apprenticeship her labours had become valuable, and that her mistress was entitled to them, as recompense for teaching. Subsequently a threat of appeal to the Lord Mayor, and a belief that a continuation of the occupation would soon render the apprentice incapable of labour, induced the mistress to cancel the indentures, and the victim was saved" (Ibid. p. f 235, l. 58).

Frederick Tyrrell, Esq., surgeon to the London Ophthalmic Hospital and to St. Thomas's Hospital, concludes a melancholy description of the progressive stages by which complete disorganization of the eyes, and consequent total loss of vision, take place in many of these young women as the result of their excessive labour, with the following example: "A fair and delicate girl, about seventeen years of age, was brought to witness in consequence of total loss of vision. She had experienced the train of symptoms which have been detailed, to the fullest extent. On examination, both eyes were found disorganized, and recovery therefore was hopeless. She had been an apprentice as a dress-maker at the West end of the town; and some time before her

vision became affected her general health had been materially ^Mderanged from too close confinement and excessive work. The ^Dimmediate cause of the disease in the eyes was excessive and continued application to making mourning. She stated that she had been compelled to remain without changing her dress for nine days and nights consecutively; that during this period she had been permitted only occasionally to rest on a mattress placed on the floor for an hour or two at a time; and that her meals were placed at her side, cut up, so that as little time as possible should be spent in their consumption. Witness regrets that he did not, in this and a few other cases nearly as flagrant and distressing, induce the sufferers to appeal to a jury for compensation" (Ibid. p. f 234, l. 56).

There is evidence that the constitutional injury sustained at this early period of life is often never recovered. Mr. Devonald, surgeon, Great Titchfield Street, states that he has known several who have married, and whom he has attended for years: "Their health and strength are gone; they are completely disorganized; has known numbers of young healthy women who in this way have been reduced to a permanent state of debility. Many of them die, especially from consumption. Many of them, after their health has been ruined, are compelled to give up the business" (Ibid. p. f 236, ll. 16—20).

Dr. Shaw: "Has had an opportunity of seeing these females after marriage; he has observed that there was a great delicacy of their general health, so that they were always ailing" (Ibid. p. f 237, l. 18).

Dr. James Johnson: "They become not only unhealthy themselves, but afterwards consign debility and disease to their unfortunate offspring: it is thus that infirmities of body and mind are acquired, multiplied, transmitted from parent to progeny, and consequently perpetuated in society" (Ibid. p. f 232, l. 53).

"The protracted labour described above," says the Sub-Commissioner, "is, I believe, quite unparalleled in the history of manufacturing processes. I have looked over a considerable portion of the Report of the Factory Commission, and there is nothing in the accounts of the worst-conducted factories to be compared with the facts elicited in the present inquiry. Gentlemen who, from their official situation, were well qualified to judge,

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have also stated, in answer to my questions, that they knew of no instance in which the hours of work were so long as those above stated" (Second Report, p. 117—120).

All classes of witnesses concur in stating that there is no necessity for a system which entails such dreadful consequences; that the real interests of the trade are not promoted by it; and that it would not be impracticable to devise and enforce general regulations, which, while they should afford protection to the employed, would not injure the employer. Miss H. Baker, an employer: "Is decidedly of opinion that by proper regulations, applicable to all, there is nothing connected with the business itself which requires longer hours than other occupations. Knows it would be a great boon to a large number of Young Persons, now totally unprotected, if the hours were shortened, and night-work prohibited" (Grainger, Evidence: App. Pt. I., p. f205, l. 11).

Miss O'Neil, an employer: "If any general regulations for ordering the hours of work were enforced, considering that there are always an abundance of hands to be had in London, no interruption to the efficient carrying on the business could arise. Such regulations would tend to the employment of some hundreds of workwomen who now are out of work. A restriction of the hours of labour would be a blessing to thousands of girls and young women, who are now utterly taxed beyond their health and strength" (Ibid. p. f206, l. 3).

Mrs. Murphy, Duke-street, Manchester-square, an employer:—"Thinks there is no doubt that, if an universal regulation were enforced to shorten the hours of labour, no injurious interruption to the business would be produced; thinks that the business would be quite as well carried on as at present. A considerable amelioration would be effected if ladies were more considerate in giving their orders. Does not think that much reliance could be placed on such considerations as one means of alleviating the existing evils" (Ibid. p. f207, l. 10).

Miss Sewers, Princess-street, Hanover-square, an employer:—"There are always in London a large number of 'day-workers' unemployed, and who, although not qualified to undertake the finer parts of the business, are quite capable of doing the plain work, of which there is a considerable part in every dress. Witness, in the busy season, employs persons out of doors, to whom

the work is given out, by which means, in a great measure, the necessity of late hours is obviated; does not find that this mode of conducting the business at all interferes with its efficiency, due care being taken to select proper workwomen, of whom any number that is required may always be obtained. As far as witness's experience extends, does not think that such a method of carrying on the business, if generally adopted, would interfere with its efficiency" (Ibid. p. f211, l. 10).

*Millinery,
Dress-Making
in London
General
Treatment*

Madame Victoire, Baker-street, an employer:—"Thinks that if all the hours were restricted from nine A.M. till nine P.M., it would be most beneficial and not injurious to the trade" (Ibid. p. f213, l. 53. See also Witnesses, p. f208, l. 26; p. f221, l. 51; p. f221, l. 48 et seq.).

Of the general treatment and condition of these Young People the Sub-Commissioner reports:—"The evidence of all parties establishes the fact that there is no class of persons in this country, living by their labour, whose happiness, health, and lives are so unscrupulously sacrificed as those of the young dress-makers. They are, in a peculiar degree, unprotected and helpless; and I should fail in my duty if I did not distinctly state that, as a body, their employers have hitherto taken no steps to remedy the evils and misery which result from the existing system. There are happily numerous exceptions—many of the principals being most kind, and desirous of promoting the comfort of their workwomen, so far as the long hours will permit. As a class they suffer most severely in their health. It unfortunately happens that they begin the business about the age of fourteen to sixteen, when the most important change in the female constitution takes place; and thus the injurious effects produced by protracted labour in an unwholesome atmosphere and want of rest often extend to their whole future existence. A medical gentleman who has had ample opportunity of observing these cases for twenty years states that, if the Young Persons work the customary long hours for any length of time, 'their constitution receives a shock from which it never recovers; they may leave off work for a period, they may go into the country to their friends, but they never regain their health.' It may without exaggeration be stated that, in proportion to the numbers employed, there are no occupations, with one or two questionable exceptions, such as needle-grinding, in which so much disease is produced as in dress-making, or which present

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so fearful a catalogue of distressing and frequently fatal maladies. It is a serious aggravation of all this evil that the unkindness of the employer very frequently causes these Young Persons, when they become unwell, to conceal their illness, from the fear of being sent out of the house ; and in this manner the disease often becomes increased in severity, or is even rendered incurable. Some of the principals are so cruel as to object to the young women obtaining medical assistance" (No. 626).

" Notwithstanding the most unfavourable character of this Report, it is proper to state that I have reason to know it in some respects falls short of the truth. In the course of the inquiry I repeatedly noticed a great disinclination on the part of the Young Persons to state what they knew, and this owing to a feeling of intimidation which was very prevalent. A reference to the Evidence shows that, where the witnesses (such as Nos. 525, 526, 527, 528, 585, 588) could speak without fear of the consequences, the information is strongly contrasted with that generally given by the apprentices and improvers. In concluding this part of the present Report it may be stated that several competent witnesses are of opinion that by proper regulations a considerable part, if not the whole, of the existing evils may be rectified ; and that this might be effected is proved by what has already been accomplished in several establishments. The statements of the following Witnesses, either principals or ' first hands,' are deserving of great attention :—Nos. 525, 529, 553, 560, 568, 571, 579. It is gratifying to add that a very general wish was expressed by the employers that some means should be devised by which the Young Persons might be relieved from the long hours now almost universal" (Ibid. Report: App. Pt. I., p. F 32 et seq., ss. 304 et seq. *Second Report*, p. 121, 122).

VII.—CONCLUSIONS RESPECTING THE PHYSICAL CONDITION OF THE CHILDREN AND YOUNG PERSONS EMPLOYED IN TRADES AND MANUFACTURES.

The results deduced by the Commissioners from the preceding evidence are—

*Trades &
Manufactures.*

Conclusions.

That in many of these Trades and Manufactures, and especially in pin-making, nail-making, lace-making, the hosiery trades, calico-printing, the earthenware trades, and tobacco-making, the Children have not good and sufficient food, nor warm and decent clothing; great numbers of them when questioned stating that they have seldom or never enough to eat, and many of them being clothed in rags; and it is a general complaint that they are prevented by want of proper clothing from going to the Sunday-school, or to a place of public worship.

That in all these occupations, in all the districts, some of the Children are robust, active, and healthy, although in general even these are under-sized; but that, from the early ages at which the great majority commence work, from their long hours of work, and from the insufficiency of their food and clothing, their "bodily health" is seriously and generally injured; they are for the most part stunted in growth, their aspect being pale, delicate, and sickly, and they present altogether the appearance of a race which has suffered general physical deterioration.

That the diseases which are most prevalent amongst them, and to which they are more subject than Children of their age and station unemployed in labour, are disordered states of the nutritive organs, curvature and distortion of the spine, deformity of the limbs, and diseases of the lungs, ending in atrophy and consumption. (*Second Report, Conclusions, pp. 198-9.*)

MORAL CONDITION.

*Moral
condition.*

WE have now adduced the main results of the investigations which have been made into the effects of early labour on the "bodily health;" but we are also directed by the terms of our Commission to report on the influence of such employment on the Moral Condition of those who are engaged in it. For the reasons assigned in our First Report, we have thought that we should best fulfil this part of our duty by bringing under one view the moral condition of the whole of the youthful population included within the present inquiry, which has brought to light important facts not only as to the actual Moral Condition, but also as to the state of Education, as well of the Children and Young Persons employed in Mines and Collieries, as of those employed in Trades and Manufactures; particularly with regard to the existing means of instruction, the extent to which those means are used, and the degree in which they are really conducive to intellectual, moral, and religious training.

In presenting an analytical view of the moral condition of the whole of the youthful population included in the present inquiry, we propose to show—first, the state of education; and, secondly, the actual moral condition of the Children and Young Persons employed in,—

1. Coal and Iron Mines.
2. Mines of Tin, Copper, Lead, and Zinc.
3. Trades and Manufactures.

VIII.—MORAL CONDITION OF CHILDREN AND YOUNG PERSONS
EMPLOYED IN COAL AND IRON MINES.

Means of Instruction.

All classes of witnesses concur in stating that the means of education provided for the Young People employed in the coal and iron works of South Staffordshire are lamentably deficient. Bilston, being the centre both of the coal mines and of the iron works, may be regarded as a type of this district. In this town, with a population of 20,000 persons, the whole provision for the education of the working classes consists of four day-schools, two infant-schools, two or three night-schools recently established, and two schools for girls, in which needlework is taught in addition to reading. A British school was attempted, but did not succeed. The only other means of instruction are Sunday-schools.

*Coal and Iron
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ordshire*

In the Returns to the Circùlars which were addressed by the Commissioners to the ministers of religion of all denominations, with a view to obtain correct information as to the state of education, the clergymen of this district uniformly state that the means of instruction are utterly inadequate to the wants of the people; that there is not provision for one-fourth of the uneducated youth; that great numbers of the Children employed in labour attend no school at all, nor any place of worship; and that the neglect of the moral and religious training of this large portion of the population is disgraceful to a Christian country (Mitchell, Report, Mines: App. Pt. I., p. 23, ss. 189 et seq., p. 26, ss. 213, 214).

In the Coalbrook Dale district it is stated that the Children depend chiefly for what little education they receive on Sunday-schools; the clergymen and other witnesses bear the same testimony as in Staffordshire to the utter inadequacy of the means of instruction; and it is observed that even the elementary information which is communicated, being insufficient to excite curiosity, and to lay a foundation of knowledge, and being confined merely to learning the letters, and the pronunciation of syllables and words, those who acquire a capacity to read do not in general make use of the faculty in after-life.

Shropshire

In the Warwickshire and Ashby-de-la-Zouch districts, in both of which the chief means of education are Sunday-schools, the

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on clergymen and other witnesses state, that the Children, not having learned to read well, find little pleasure in reading, except in cases of superior intelligence (*Ibid.* p. 94, ss. 60 et seq., and p. 101, ss. 141 et seq.).

e. In Derbyshire the Sub-Commissioner reports, that there are no other means of instruction for the Children employed in labour than Sunday-schools; that there are indeed some national and free schools, from which, however, the collier Children are excluded by the rules of the schools; and that the constant answer of the coal-owners and agents to his inquiries throughout the district is,—“No school, no reading-room, no club, nor anything of the sort connected with these coal-works” (*Fellows, Report, Mines: App. Pt. II., p. 257, ss. 69 et seq.; Evidence: pp. 275 et seq., nos. 45, 50, 66, 109, 125*).

ng re. In the West Riding of Yorkshire, Mr. Symons states that almost the only provision for the education of the collier population is Sunday-schools; that the day-school instruction is wholly insignificant; and that the opinion of the more intelligent among the working classes themselves is expressed in one of the resolutions passed by the body of colliers assembled at the Court-House, Barnsley, declaring that “they earnestly desire to have better means of education” (*Symons, Report, Mines: App. Pt. I., p. 195, s. 223*).

i. In the vicinities of Bradford and Leeds, in which Mr. Wood made a brief investigation, it is stated that, although some few of the Children, before entering the mines, attend day-schools for a short period, and some others, “forming however a proportion of the whole quite insignificant,” attend night-schools after entering the mines, yet that the great majority receive no school instruction whatever; that there are no industrial schools in the district, and that “no provision is made for training the Children in moral habits, for affording them religious knowledge, and for exercising them in the practice of religious duties.” Attendance at Sunday-schools during some portion of their childhood appears indeed to be almost universal, but it is only to a very partial extent continuous and uniform, while in most of these schools no attempt is made to convey secular instruction beyond reading; and the evidence uniformly given by the clergymen and other witnesses is to the following effect:—“For four-fifths of the young

population there is no instruction whatever, excepting the chance of Sunday-school instruction" (Wood, Report, Mines: App. Pt. II., p. H 8, ss. 43 et seq.).

*Coal and Iron
Mines.
—
Means of
Instruction.
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Halifax.*

As an example of the mental culture of the collier Children in the neighbourhood of Halifax, the Sub-Commissioner states, that in an examination of 219 Children and Young Persons at the bottom of one of the coal-pits, he found only 31 that could read an easy book, not more than 15 that could write their names, these latter having received instruction at some day-school before they commenced colliery labour, and that the whole of the remaining number were incapable of connecting two syllables together (Scriven, Report, Mines: App. Pt. II., p. 73, s. 91).

Of the state of education in the coal-fields of Lancashire the Sub-Commissioner gives the following account:—"It was my intention to have laid before the Central Board evidence of the effects of education, as shown by the comparative value of educated and uneducated colliers and Children employed in coal mines, as workmen, and to have traced its effects, as shown by the superior moral habits and generally more exalted condition of those who had received the benefits of education over those who had not, which I had observed and proved to exist in other branches of industry. I found, however, that the case was hopeless; there were so few, either of colliers or their Children, who had even received the first rudiments of education, that it was impossible to institute a comparison" (Kennedy, Report, Mines: App. Pt. II., p. 183, s. 268).

Lancashire.

Of Oldham and its vicinity, containing upwards of a hundred thousand inhabitants, Mr. Fletcher reports that there is, "in the whole parish and neighbourhood, only one small public day-school for the labouring classes, except an infant-school; the only other day-schools being, with few exceptions, petty dame-schools of the poorest description, to which the Children are sent to be out of the way; and the factory-schools, for the Children between nine and thirteen years of age, employed in the factories, which are no better, considering the more advanced age of the pupils.

Oldham.

"The only schools which the dense population of this recently wild district have been accustomed voluntarily to frequent (engaged as the Children are in the mines and factories during the week) are the Sunday-schools, commenced here in 1793, and

greatly extended about 1800. Habit has caused these schools to be regarded as the legitimate and sufficing source of all knowledge of letters ; and the whole juvenile population frequent them, excepting those whose parents are too poor or too dissolute to clothe and send them.

"In their origin they rapidly acquired an entirely secular character, the instruction being in reading, writing, and accounts, without any attendance at a place of worship ; and this character is still retained by many ; but the clergy have of late years refused to permit instruction on the Sabbath to extend beyond reading and Scripture lessons, in the schools over which they have any control : at the same time opening evening-schools, two nights in the week, to impart that knowledge of writing and accounts which it was formerly made the business of the Sabbath to cultivate. The Sunday-schools, and the evening-schools attached to them, are equally supported by subscriptions ; instruction in them is therefore gratuitous ; and this circumstance contributes, with the universally low appreciation of the value of instruction, to make them be exclusively relied upon.

"For Sunday-school instruction large subscriptions can be got from the higher classes, and large attendance from the lower—a partiality for Sunday-schools which prevails throughout the district, as in Rochdale and Ashton. There are some of the Sunday-schools in Oldham township, perhaps seven, which do not give instruction in writing and arithmetic on Sundays ; all the rest do. Those which do not teach reading and writing on Sundays give such instruction on week-day evenings to such portion of the scholars as choose to attend. At the Church Sunday-school of St. Peter's and St. James's this is two nights a-week for boys, and two other nights for girls. In St. James's district the minister himself gives the instruction. The Sunday-school instruction is wholly gratuitous ; but, 'as a means of religious instruction,' states the Rev. W. F. Walker, 'it is obvious that schools, composed as these are, must be imperfect in the extreme. As secular schools, they do harm by lowering the people's estimation of the value of secular instruction, and making them contented with less than they ought to have. Being gratuitous too, Sunday-school instruction is not valued so much as if it were paid for ; and the interval of six days between each day of instruction delays the

attainment of any obviously good result. In many schools, too, c the teachers will attend by rotation only once a month, and each may be carrying on a separate system. If the Sunday-schools, however, insufficient as they are, were not to supply something, there is not sufficient desire for instruction among the people to make a demand for teachers at any time or in any form during the week. In the Sunday-schools of the dissenting congregations the same deficiencies exist, and the ministers of those congregations neither do nor can pay much attention to them.' Such is Sunday-school instruction, which is synonymous with popular education, as pursued in the Oldham district of Lancashire."

" From an abstract of the returns made by the employers in this neighbourhood, it appears that four-fifths of the Young People are stated to attend Sunday-schools, with little difference in the proportion at different ages; and that rather more than half of them attend public worship, for the most part, it may be presumed, in connexion with these schools; while none whatever attend day-school. The number who say they can read an easy book is three-fourths, but this includes commonly all who can spell their way through a few words; and consequently the proportion is nearly as great of the younger boys as of the older youths, who are stated to possess this accomplishment; while the number who can write *is not one in five*; and the truth of the figures which show this may be relied upon, their proficiency being tested by subscription to the return. This, therefore, is the best test afforded by these returns of the actual state of instruction; and if the number of misspelled and illegible scrawls be deducted, the stated proportion will be considerably reduced. It may safely be concluded, that those who have not progressed so far as to be able to write, do not read with either pleasure or profit" (Report, Mines: App. Pt. II., pp. 833, 835, ss. 65, 66, 67, 73, 76; Evidence, p. r 859, 860).

In the coal-fields of North Lancashire examined by Mr. Austin, ¹ it is stated that the education of the working-people has been almost wholly neglected; that they have received scarcely any instruction at all, either religious or secular; that they cannot therefore be supposed to have any correct conception of their moral duties, and that in fact their intellects are as little enlightened as

^{and Iron} their places of work—"darkness reigns throughout" (Report, Mines: App. Pt. II., p. 805, s. 26).

^{ca.}
^{causes of}
^{infection.}

^{aberland.}

In Cumberland the mental destitution in which the great body of the collier Children are growing up, says Mr. Symons, "is fearfully great; they are as ignorant as it is well possible to conceive Children to be; nor are the lads of from thirteen to eighteen years old one jot more informed. It is not to be supposed that Children confined for twelve hours in a coal-pit can have opportunities for any sort of education. There are instances of its being previously acquired and retained, and some were selected in Lord Lonsdale's colliery; but this is by no means the rule; and the evidence they give affords a fair sample of the general state of education among those benighted Children" (Report, Mines: App. Pt. I., p. 302, s. 23).

^{South}
^{Durham.}

In South Durham, in which of late years there has been an enormous extension in the working of coal, new towns have suddenly sprung up, with a population varying from one thousand to five thousand. For the secular, moral, and religious instruction of these masses, thus suddenly brought together, no provision has been made. With the exception of the instruction they receive at Sunday-schools, the most successful result of which is stated to be that "they learn to put easy words together," the collier Children in this great district receive no education of any kind whatever (Mitchell, Report, Mines: App. Pt. I., p. 144, s. 217).

^{North}
^{Durham and}
^{Northumber-}
^{land.}

In North Durham and Northumberland the Sub-Commissioner reports that the education of the Children and Young Persons employed in coal mines is universally admitted to be "at a very low ebb;" that the little schooling given to the Children previously to their entering the coal mines is insufficient to afford even the most slender basis of knowledge; that "a brief experience of the fatigues of the coal mine, and a brief familiarity with the language and habits of the colliers, are, in most instances, sufficient to eradicate any desire for instruction which might have been previously fostered;" and that it was found on examination that "a considerable number of Young Persons had absolutely retrograded into a state of almost entire illiteracy," as is shown in almost every page of the evidence, by their answers to the questions put to them, and by the manner in which they reply (Leif-child, Report, Mines: App. Pt. I., p. 529, ss. 103, 104).

In the East of Scotland, from the returns received from clergy-men and others in answer to the printed queries, it appears that the means of education afforded to the working-classes are nowise scanty in the counties of Haddington, Edinburgh, Linlithgow, Stirling, Clackmannan, Perth, and Fife; but that in the present condition of colliery labour in these districts those means are unavailable to the colliery population (Franks, Report, Mines: App. Pt. I., p. 399, s. 76).

The statements of the clergymen from whom educational returns have been received are to the following effect:—"I believe that the condition of the lower classes is gradually becoming worse, in regard to education, and it is telling every day upon the moral and economic condition of the adult population" (Ibid. p. 425, l. 51). "None of the schools are attended by collier Children except a very few. The country will be inevitably ruined unless some steps are taken by the legislature for securing a full education to the Children of the working-classes" (Ibid. p. 426, l. 1). "Collier Children generally leave school at ten; those of agricultural labourers at thirteen or fourteen; school is generally abandoned, when labour commences. A marked inferiority in the collier Children to those of the town and manufacturing population. Upwards of 100 heads of collier families, most of whom leave their Children to themselves—to ignorance and irreligion" (Ibid. p. 426, l. 42).—"Many of the Children are not educated at all" (Ibid. p. 428, l. 30).

In certain localities in the West of Scotland the population has of late years increased with unprecedented rapidity, and the value of property has been augmented in a still more remarkable degree, chiefly by the establishment of mines and iron-works, as examples of which may be cited the great iron-works of Gartsherrie, Sommerlee, Calder, Dundyvan, and Chapel Hall. These works receive a great quantity of ironstone from Rochsilloch, the property of Sir William Alexander. The black-band here yields from 30 to 40 per cent. of iron. The output at Rochsilloch alone is 4500 tons per month, and the annual income to the proprietor is about 12,600*l.* from a property which if only let for tillage would yield but a few hundreds per annum!" By a table in Robertson's 'Description of Cunninghame' it appears that, on an average of all the parishes of that district, the rental was 18 times more in 1809 than in 1653; and in Stevenson parish the

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rental had become 45 times greater. Villages and towns have sprung up on what at no distant period was a barren moor, containing works which give employment to hundreds of people, and for whose labour many thousand pounds per month are paid in wages. Previous institutions can of course have made no provision for the education of a population recently established in these new localities. The employed having been paid for the work done, have no further legal claim on the employer, and have been left for the means of education to their own resources, according to the clergymen and other witnesses in the district, with the following result :—" Our educational and religious means have not kept pace either with the advancing population or the growing degeneracy. The means of public religion and of pastoral superintendence are not adequate to the exigencies of a growing population." "That beautiful parochial economy which the fathers of the Scottish Reformation handed down as a most precious boon to their successors, has become little more than a shadow." "The population has been left to increase, with a signal disregard not only to the comfort but to the morality of the human machines thus aggregated by the demand for their labour." The Sub-Commissioner adds, "The instances cited are only samples of the astounding change of circumstances which has occurred in certain localities within the last 50 or 100 years. What wonder if those interests, which are not the most palpable, nor the first thought of, have been overlooked? That the ancient institutions of our country have not kept pace with such unprecedented changes?" (Tancred, Report, Mines: App. Pt. I., pp. 345 et seq., ss. 102 et seq.)

*North
Wales.*

In North Wales Mr. H. H. Jones states, that the Children, forming the subject of his report, "Have few opportunities of obtaining any education whatever. There are, indeed, everywhere dame-schools, though under no guidance but that of the teachers; to these the children frequently go; but, being taken from them when they obtain work, they are rarely able to read when they leave. Amongst the collier boys not one in ten can read with anything approaching correctness, or so as to comprehend the sense of what he reads: those in the mines are almost, though not quite, as illiterate, probably because they do not go to work so early. Both classes are, however, utterly ignorant. It is an uncommon circumstance to meet with one who can read, write,

and cast accounts" (II. H. Jones, Report, Mines: App. Pt. II., *Coal and Iron Mines.* p. 371, s. 43).

The different witnesses examined in this district say:—"As soon as the Children begin to work they have no other means of cultivating their minds except the Sunday-school" (Ibid. Evidence: App. Pt. II., p. 447, l. 6). "The means of getting education are very deficient; but for the preachers and dissenters the colliers would be totally neglected in this neighbourhood. In Rhos Llanerchrygog, which is a village in the middle of the coal and iron works, containing about 4000 souls, there is no church within two miles, and no clergyman or gentleman lives amongst them" (Ibid. p. 391, l. 8). "At Ruabon there are no schools close to the collieries and forges except some dame-schools. The Children from the works go to no school but the chapel school on Sunday" (Ibid. p. 384, l. 17). "Secular instruction is very little attended to: it is pitiable to witness the ignorance which surrounds them" (Ibid. Report, s. 80, p. 375).

In South Wales Mr. Franks reports, "That the means of intellectual, moral, and religious culture afforded to the Children of the working-classes are lamentably defective. From the school returns," he says, "it will be seen that the means of education in the different parishes therein enumerated are adequate only to the education of a very small proportion of the rising generation. In the parish of Gelligan, for instance, with a population of 1500, there are four schools, with an average attendance in the whole of 80 to 90, being little more than one-sixteenth of the population" (Report, Mines: App. Pt. II., p. 487, s. 94).

Of the statements as to the deficiency of the means of instruction, made by the clergymen, schoolmasters, agents, and other witnesses in this district, the following are examples:—"The school education of this place is quite inadequate to the wants of the people. The schools are of the lowest order, conducted neither on a good system, nor by proper persons; religious and moral training is out of the question, and the amount of secular instruction is very limited" (Evidence, Mines: App. Pt. II., p. 515, l. 62). "I do not consider the few day-schools there are in this district capable of exercising any, the least, moral or religious influence upon the habits and condition of the Children attending them" (Ibid. p. 539, l. 53). "I have lived in the prin-

Means of Instruction.

North Wales.

South Wales.

Iron cipality all my life, and I have observed that, as the demand for labour has increased, and occupation has been given to the working people, the desire of education has decreased, and the means of education also" (Ibid. p. 523, l. 32). "Schooling is out of the question, there not having been a schoolmaster in the village for some time till the last four months" (Ibid. p. 526, l. 53). "Few men in this neighbourhood send their Children to school; indeed, if they had the desire there is no school for them" (Ibid. p. 523, l. 27). "Education is indeed at the lowest ebb; it cannot be worse" (Ibid. p. 524, l. 27). "There is a total absence of education in the neighbourhood" (Ibid. 528, l. 6). "Few of the Young People have received the most ordinary education; one-fourth, probably, may know their letters, certainly not more" (Ibid. p. 503, l. 27). "Not one-third of the adults can read" (Ibid. p. 561, l. 18). "I consider the rising more ignorant than the present generation" (Ibid. p. 544, l. 30). "I should certainly be within bounds when saying that not one grown male or female in fifty can read" (Ibid. p. 536, l. 22).

Mr. R. W. Jones gives the same report of that part of South Wales visited by him. "The provision made for the religious instruction and moral training of the Children and Young Persons," he says, "is most deficient, and the majority receive no instruction whatever excepting at the Sunday-schools" (R. W. Jones, Report, Mines: App. Pt. II., p. 586, s. 38).

of South A few years ago, says Mr. Waring, the collier population of the Forest of Dean, and of South Gloucestershire, were almost entirely destitute alike of schools and churches, and even at present, although the means of instruction and of religious worship have recently been much extended, "many of the Children, before they commence labour in the coal mines, receive no schooling whatever, and make a sudden transition from uninstructed idleness to daily toil in an occupation which calls forth no mental energy and excites no spirit of inquiry. It cannot, therefore, be wondered at if their existence presents little more than the mere animal routine of work and play, food and sleep. There is a dull monotony and absence of device in colliery labour, furnishing no stimulus to the uneducated mind, whilst the employment in iron manufactories, and many other mechanical callings, is calculated to excite an inquiring spirit, to exercise the observant faculties,

sharpen the wits, and enlarge the comprehension. A corresponding superiority in the smartness and intelligence of the manufacturing boys is a fact which has forcibly attracted my notice during this inquiry. I find Sunday-schools the great agents of education to the working-classes in both districts" (Report, Mines: App. Pt. II., p. o 35, ss. 55—57).

Use of the Means of Instruction.

The whole tenor of the evidence shows that even of these means of education, limited as they are, the Children employed in colliery labour are to a great extent unable to avail themselves, chiefly from two causes: first, their early removal from school; and secondly, their excessive fatigue, partly from the nature, but still more from the long duration, of their daily work.

In the districts of South Staffordshire, Shropshire, Warwickshire, and Ashby-de-la-Zouch, the Sub-Commissioner states that the Children are sent at so early a period to the coal-field, to the iron-mines, and to other labour, that it is scarcely possible for them to obtain anything deserving the name of education; that after they have begun work they cannot of course avail themselves of day-schools, that their excessive fatigue renders their attendance at evening-schools after their daily labour is over out of the question, and that consequently early employment, as at present carried on in coal-mines, involves the necessary neglect of almost all instruction and mental culture (Mitchell, Report, Mines: App. Pt. I., p. 23, s. 187).

These statements are sustained by the evidence of clergymen, agents, and all classes of witnesses, whose concurrent testimony is uniformly to the following effect:—"Children are removed from school at five years old and upwards. They soon lose what little knowledge they had acquired at school. Their further prosperity in life is materially injured by their inability to read and write. Neither their mental nor physical condition can be much improved until their earlier days are entirely devoted to school. They might all, without any impediment to the working of the coal-mines, be uniformly kept at school, at least until ten years of age. The progress made by Children who are unemployed in labour, and able to attend day-schools, as compared with that of the Children who are able only to attend night-schools and Sun-

on day-schools, is so superior, that it will not bear comparison. On hearing the Children read he could at once distinguish which belonged to the one class and which to the other" (Ibid. p. 25, ss. 201 et seq.; p. 26, ss. 211 et seq.; p. 101, ss. 143 et seq.).

Both these causes operate with peculiar force in the Derbyshire district, and the Sub-Commissioner says:—"I, as well as the schoolmasters, have found a dulness about these Children not in other boys: with one striking exception, namely, the Chesterfield Union, in which it is the custom to work only ten hours a-day; here the Children look much happier, and without the dulness so apparent in them in other parts of the district." Of the Children in general in the coal-fields of this district the clergymen and agents say:—"They appear more tired, and do not attend so early; and the parents, when applied to, often say they come home so wearied that they cannot get them to school in time. When the boys have been beaten, knocked about, and covered with sludge all the week, they want to be in bed all day to rest on Sunday" (Fellows, Report, Mines: App. Pt. II., p. 258, s. 87; Evidence, p. 266, l. 33).

In regard to the vast population in mines and factories in and around Oldham, for whom there is no public day-school whatever, the Rev. W. F. Walker, curate of St. James's, states—"This want of support to any decent day-school arises from the indifference of the parents to the instruction of their Children, resulting from their own ignorance of its benefits. It does not arise from any religious or sectarian jealousy or prejudice; the earnings of the population around here are amply sufficient in prosperous times to pay for the instruction of their own Children; the parents, even in these times, will themselves support nothing but an infant-school for week-day instruction. Sunday-school instruction they will take, because it does not interfere with work, nor does it cost anything; but when the Children come to about seven years of age they are too useful to be allowed to come to school during the week; and many even go out to nurse or hire so young as five. So soon as the Children can nurse a child, push a coal-tub, or perform the least service, immediately they are employed, in the eagerness to profit by their labour in good times, to meet the necessities of a family in bad ones; and in the prevailing want among the parents of any appreciation of the value of instruction

when there is any appreciation of it whatever, they think that the necessity is sufficiently met by the Sunday-schools. The only day-schools voluntarily supported by the labouring classes are the little dame-schools, which they use, as they would an infant-school, for the sake of getting their Children out of the way in a sort of nursery. There are a few schools for Children up to about ten years of age, which are frequented by the Children of those who are among the best off, the most provident, and the most intelligent of the labouring classes. The master of one of these has made money in his avocation.

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“The schools which answer the requirements of the Factories Act, in regard to the Children working short time between the ages of nine and thirteen, commonly have masters appointed by the factory owners themselves, who, in making the appointment, are more influenced by a feeling of charity towards some dependant, than by any ardour in the cause of instruction. The school-fee is generally stopped by the master out of the Children's wages, and he pays the master; at all events, the teacher can always appeal to the master for payment. To show the light in which such things are here regarded, yonder house at the corner has under it a cellar, and in that cellar is kept the school for the enormous factory on the other side. The Act requires an attendance of only two hours, and the instruction is such as the conscientious feelings of such persons as are appointed may prompt. There are some evening-schools, including one at the Lyceum, to which a small proportion of the Young People resort; but the mass of the labouring population in this town and neighbourhood look to the Sunday-schools as the great source of instruction” (Fletcher, Evidence, Mines: App. Pt. II., p. 859).

In the Yorkshire district all classes of witnesses concur in stating that “before the labour of the coal mine commences, Children are not sent to school long enough to lay any foundation for knowledge; that there is a wish amongst the colliers to have their Children educated, but that it is not strong enough to lead them to economise in other respects to pay for their education before they go to the pit, or to resist the temptation of making up for their improvidence by the earnings of their Children;” that after “the toil of the day the Children are too tired to go to night-schools; that in cases in which the experiment has been tried, and

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pains have been taken to provide a good school, the attendance of the Children could not be obtained; that parents will not send their Children to school unless forced," and that education will never be properly diffused until it be made obligatory, because that part of the people who want it most care nothing about it (Symons, Evidence, Mines: App. Pt. I., pp. 230 et seq., nos. 15, 137, 138, 170, 236 et seq.).

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"The capacity or inaptitude of the Children for receiving instruction after their hours of daily labour," says Mr. Wood, "is a subject upon which I received much contradictory evidence. The general view taken was, that the excellent health and spirits which the Children undoubtedly enjoy, and their capability of enjoying exercise and amusement after the hours of labour, are evidence that they would be perfectly capable of receiving instruction during a portion of the day additional to their hours of labour. On the other hand it is alleged, that however disposed for play or exercise, they would neither be equally prepared for a sedentary occupation, nor sufficiently alert, after the labour of the day, to receive instruction with advantage. In this last view of the case I am disposed, after carefully weighing the matter, decidedly to concur. Further than this, I am disposed to think that, if the period now given to exercise and play, after work, were curtailed, the Children would not continue to enjoy the same physical health which they at present do. Bad consequences might perhaps not result from the attendance at school, after the present hours of labour, of Young Persons from the age of thirteen upwards; but, in their case also, I am disposed to attach great value, with regard to physical development, to the opportunities at present enjoyed for play and recreation" (Wood, Report, Mines: App. Pt. II., p. H 9, s. 54).

The clergymen and other witnesses attribute the indisposition of the Children to attend the evening-schools "to real exhaustion, in many cases, from the labour of the day. To use the expression of the parents, when I speak to them, 'It's hard when the *bairns* have fallen asleep by the fireside, after their supper, to *wakken 'em* up to go to school. When the Children come out of the mill or the mine at night, they want play; they have no inclination for school at night. Instruction should be given in the day-time, when they are in strength and spirits. At night, if they

are not at play, they are more inclined to go to sleep' " (Wood, *Coal and Evidence, Mines: App. Pt. II.*, p. h 16, l. 56 ; p. h 22, l. 72). *Coal and
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Many parents state that they lament the deficiency of their own education, and are anxious that their Children should be better instructed, but when asked whether they would be content that they should receive rather less wages in order to allow them time to go to school, they answer:—"I do not know hardly how I could spare that" (Ibid. p. h 20, l. 49). "Nay, they *mun* have as much wages as ever they can get" (Ibid. p. h 20, l. 69). "I don't know for my own part, Children take a deal of keeping" (Ibid. p. h 14, ll. 22, 46). "I don't know. I think a poor man needs all he can get" (Ibid. p. h 15, l. 31).

In North Durham and Northumberland it is stated that the number of collier Children who attend evening school is altogether trifling and inconstant; and that these schools are chiefly frequented by the sons of the engineers and by artificers employed at the bank. The general statement of all classes of persons examined on this subject is similar to that of witness No. 122, who says:—"Out of 100 boys down the pit, not more than ten will be at night-school in winter and none at all in summer. The boys on leaving the pit at evening are sleepy, tired, and unfit for school, and nothing can be done for their learning while they are so long at work as at present. Pit-parents never think of educating their Children, that is, hewers and so on" (Leischild, *Evidence, Mines: App. Pt. I.*, p. 594, l. 34). *Nort
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Although the East of Scotland presents a remarkable exception to almost all the other districts in the abundance of the provision which is there made for the education of the people, yet from the very early age at which Children are usually sent to the pits, "about five years," and the excessive toil they undergo, few are capable of snatching at intervals the smallest portion of additional instruction. The Sub-Commissioner states that the Educational Returns show that the Children of colliers rarely avail themselves of the means of education presented to them; that this is so remarkably the case that, even where schcols are in abundance, it is often specially noticed in these returns that such and such schools are not attended by collier Children; that while it is stated to be quite common for Children and Young Persons employed in various branches of trade and manufacture through the day to attend evening schools, it is usually added, "no Children of col- *East
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liers and miners attend these schools." "At Bo'ness, Linlithgowshire, for example, where the collier population amounts to about 500, though the parochial school is stated to be the best in the county, 'the colliers seldom send their Children to it.' Needlework is taught in some of the schools in the evening, 'but,' says the return, 'I am not aware that any of the Children or Young Persons employed in the colliery attend them.' 'The day and evening school in the New Town is especially for the population employed at the colliery;' and what is the result? 'At present the teacher receives about 7s. per week.' And such, with very rare exceptions, is the case in most collier districts. It is further made evident that little, if anything, is done in the way of acquiring instruction after the Children have once commenced working in the pits" (Franks, Report, Mines: App. Pt. I., p. 398, s. 74).

Attendance at Public Worship.

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While it is thus apparent that an earnest and intelligent endeavour, on the part of the collier population, to profit by the means of education within their reach is extremely rare, the evidence is abundant that there are instances in all the districts in which Children never go to any school at all; and it appears that those who do not go to school seldom or never go to church or chapel. According to Dr. Mitchell, one of the great "merits of the Sunday-school is that it brings the Children together before divine service and secures their attendance in church or chapel;" but his evidence shows that in all the districts examined by him "great numbers of Children do not attend the Sunday-schools." Thus the clergymen in South Staffordshire in their Educational Returns say:—"In many places there are no Sunday-schools." "In consequence of the confinement of the Children in their occupations, relaxation on the Sunday is very grateful to them, and it is found generally to be a very difficult thing to get them to attend at Sunday-schools." "It is a fact that by far the greater number of Children who are employed in labour do not attend Sunday-schools." "The greater part of the Children, on going to labour, neglect the Sunday-school altogether." "Many Children that labour attend no school at all, nor any place of worship." Many of the Children when examined confirm these statements by their own. The boys say:—"We have dinner at one, and then go up stairs and lie on our backs for three or four hours or more and

enjoy our rest." "In summer we often go out to the spoil-bank and lie down and rest on our backs." "I do not go to church or chapel; we are worked too hard for that. On Sundays I get up at ten and take breakfast. I put on Sunday clothes and walk about in summer, and in winter sit by the fire; we get dinner at one; after that we go out or sit by the fire" (Mitchell, Report, Mines: App. Pt. I., p. 26, s. 210; p. 27, s. 222. Evidence, p. 67, l. 20; p. 69, l. 49).

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In Derbyshire "attendance at a place of worship is nearly confined to those Children who attend the Sunday-schools, and who, as a matter of course, go with the whole of the scholars to the church or chapel to which the school is attached;" and great numbers of the Children themselves give such evidence as the following:—"Neither he nor his parents go to church or chapel; goes to no school" (Fellows, Evidence, Mines: App. Pt. II., p. 343, l. 4). "Neither attends church, school, nor chapel; quite ignorant; rather ashamed" (Ibid. p. 347, l. 20). "Does not go to school, church, or chapel; does anything on a Sunday" (Ibid. p. 331, l. 35). "Works on Sunday, and can neither attend church, school, nor chapel" (Ibid. p. 354, l. 41). "Neither he nor any of his family go to church or chapel" (Ibid. p. 353, l. 42).

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In the Lancashire and Cheshire districts witnesses state that very few colliers attend either church or chapel; that "some do of course, but very many do not" (Kennedy, Evidence, Mines: App. Pt. II., p. 235, l. 60); that in general "they care nothing about religion, and are as destitute as beasts about anything of that sort;" and many of the Children, when questioned, say, "Never attends any Sunday-school; has never been to a day-school; never attends any place of worship; can neither read nor write." "I don't attend a Sunday-school; have never been to school; never attend church or chapel; cannot read or write" (Ibid. p. 221, l. 50). "I never went to school in my life; I can neither read nor write" (Ibid. Nos. 98, 100, 20, 31, 66, 42).

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Indeed, in this part of the kingdom attendance at a Sunday-school by no means invariably involves an attendance at public worship. The Sunday-school in some of the mining and manufacturing districts of Lancashire has always been regarded, by both employers and labourers, from the date of its introduction, as the proper instrument of secular instruction, because it does not interfere with "work;" and its earnest application to religious in-

struction is both recent and partial. Such a state of things is merely the first step out of the animal indifference in which the most remote colliery populations still exist. It is stated by the minister of St. James's, Oldham, that "formerly all the Sunday-schools here were of an entirely secular character, for the teaching of reading, writing, and accounts; and generally the Children went to no place of worship, unless in a very few instances they should go in the evening, and with one exception in which they went both morning and afternoon. This is still the character of the majority of the Sunday-schools; and the habit of looking to them as *the* schools still remains in full force. It is about 12 years since the secular character of Sunday-school instruction was first broken into by the Church and the Independents, who have been partly followed by other congregations, in their refusal to teach writing and accounts, except upon the week-day evenings, so as to gain more time on Sunday, not only for the mere art of reading, but for religious instruction and Scripture reading. But there are many Sunday-schools in the town which teach also writing and accounts on the Sunday, some of them not in connexion with any religious society" (Fletcher, Evidence, Mines: App. Pt. II., p. 859, l. 68).

In Yorkshire, says Mr. Symons, numbers have answered, when I asked them if they went to places of worship on Sunday,— "Nay, I work here in the dark six days, and I can't shut myself up on Sundays too." The clergymen say—"The great majority of the Children and Youths abstain from frequenting places of worship, and are growing up altogether uneducated" (Report, Mines: App. Pt. I., p. 195, s. 224). And many of the Children themselves say:—"We don't go to church" (Evidence, Mines: App. Pt. I., p. 233, l. 60). "I have never been to school: I don't go to Sunday-school; the truth is, we are confined bad enough on week-days, and want to walk about on Sundays" (Ibid. p. 244, l. 41).

"Never goes to church; 'lakes' about on Sundays" (Wood, Evidence, Mines: App. Pt. II., p. h 10, l. 48). "Never went to day, night, or Sunday school; to Sunday-school only at odd times" (Ibid., p. h 18, l. 36). "Never went to day, night, or Sunday schools" (Ibid. p. h 10, l. 16). "Never went to school; feel t' want of that; it is a sad letting down to a man" (Ibid. p. h 18, l. 34).

"I never went to day-school; I go to Sunday-school sometimes when I am driven. Some odd times I go to church or chapel; sometimes I go once a month; sometimes once in three months" (Scriven, Evidence, Mines: App. Pt. II., p. 111, l. 45). "None of us ever went to day-school or Sunday-school; we never go to church or chapel; we 'lake' about" (Ibid. p. 114, l. 26).

In Cumberland not more than one-fifth of the collier families attend public worship regularly, and many of the Children say:—"I don't go to church or chapel; I don't go to Sunday-school, because I don't like, and I'd rather play" (Symons, Evidence, Mines: App. Pt. I., p. 308, l. 34). "I don't go to Sunday-school, I like to 'lake' better" (Ibid., p. 303, l. 45).

From the returns received from South Durham it appears that from one-half to three-fourths of the Youths under eighteen years of age attend Sunday-schools; "about two-thirds say they attend public worship; and one-third state that they do not" (Mitchell, Report, Mines: App. Pt. I., p. 144, s. 224).

In North Durham and Northumberland, in the greater number of instances, the boys, and especially the young men, spend the Sabbaths, as a witness of twenty years of age (No. 302) describes himself to do, "in laying in bed or about home," if not much less innocently. The answers of a young man of eighteen (No. 102, and at that colliery, too, where the means of education are the most abundant) are brief, comprehensive, and characteristic of the conduct of the majority of his "marrows," when he states that he "goes to no school at all now. Takes all the rest he can get. Does not go to any place of worship, except once or so now and then. A good part go to worship, the youngest go mostly. He [witness] goes to walk. It takes all the week end to fetch him about." (Leifchild, Report, Mines: App. Pt. I. p. 533, s. 140).

"In North Wales," says the Sub-Commissioner, "there are many free-schools, dame-schools, national-schools, and Sunday-schools, to which the clergy and many lay persons pay unremitting attention, and in which they take a great interest; but the Children of whom I am to report derive little if any benefit from them. The early age at which they begin to labour allows of scarce an interval, except the Sabbath, for attendance at school. Some may have been a year or two at school before going to work, but they soon forget the little they had learnt; though there

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are instances of some who, by their own exertions at home, and by means of Sunday-school instruction, improve their little store of knowledge, and learn not only to read, but to write, and acquire the first rules of arithmetic. The religious restrictions of the national-schools are unpalatable to the great body of dissenters, and the hours of instruction in them interfere so completely with the hours of work, that though, in other respects, they are well calculated to effect much good, little advantage is taken of them by the Children in the mines, collieries, and quarries, who, though well disposed to learn, and attentive to all religious duties, which are carefully taught them, are allowed to grow up without any attention being paid to instruct them in reading and writing, which will open to them so extensive a field for mental improvement and rational enjoyment" (H. H. Jones, Report, Mines: App. Pt. II., p. 375, ss. 80, 81).

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Similar accounts are given of South Wales:—"Children and Young Persons engaged in labour," it is stated, "cannot attend the day-schools; they are too much fatigued after their day's work to attend the night-schools; Sunday-schools do not make up for the loss of instruction by early removal from the day-schools; many of the Children, therefore, receive no education at all, and their intellectual condition must of course be very low" (R. W. Jones, Report, Mines: App. Pt. II., p. 586, ss. 38 et seq.).

Much of the evidence collected by Mr. Franks in this district is to the same effect. Many of the Children and Young Persons examined by him make such statements as the following:—"Never was at school" (Evidence, Mines: App. Pt. II., p. 512, l. 50). "Seldom go to church; have done so twice or thrice this year." "Never was at any school; never goes to church; plays about, as all the boys do on the Sunday" (Ibid. p. 539, l. 12). "Not one of us have ever been to school; father and mother cannot read, nor any of us; recollects mother going to chapel, but father never goes: we never go."

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In the present inquiry it is very important to consider the nature and amount of the instruction which those who avail themselves to the best of their power of the means of education within their reach really receive. With this view it is necessary to attend to the result of the personal examination of the Children themselves by the Sub-Commissioners; for the mere verbal statements of the Children and parents, and even the returns from

the employers, on this subject, cannot safely be relied on. From the evidence in all the districts it appears that many Children say they can read when they only know the letters of the alphabet, or can at most pronounce monosyllables, the proportions being very few that can read an easy book; and in like manner comparatively few who state that they have learnt to write are capable of writing a sentence in legible characters. "I have found numbers say they can read," says Mr. Symons, "who when tried know no more than their letters, or at least nothing beyond monosyllables;" and in Scotland, out of 866 persons who pretended to write their names, "I might venture to affirm," says Mr. Franks, "that it would require a well-practised eye to decipher even 150." Similar statements are made by almost all the Sub-Commissioners in all the districts.

Inefficiency of Day-School Teachers.

With one exception all the Sub-Commissioners concur in expressing a strong opinion of the general want of qualification for their office of the persons at present engaged in the task of instruction, the great majority of the teachers being ignorant, untrained, and without the slightest conception of any regular system or method of teaching. "The deficiency of the teachers," says Dr. Mitchell, "is a matter of universal admission and regret. The funds of the National and British Schools are utterly insufficient to enable the Committees of Management to instruct a sufficient number of teachers, or to retain such as endeavour to acquire a scientific knowledge of their profession anything like a sufficient length of time. Local committees must therefore be content with the best teachers they can find. The qualifications of the Sunday-school teachers of both sexes must necessarily vary with the description of persons belonging to the several congregations. They perform a labour of love; and that of the teachers of the National and British Schools, as well as of day-schools conducted by masters on their own account, is equally a free-will offering. But intended teachers must themselves be instructed in the branches of education which it would be beneficial to teach to the Children of the working classes, before the elements of knowledge can be communicated to the great body of the people" (Report, Mines: App. Pt. I., p. 24, ss. 199, 200, 217 et seq.).

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From the Report and Evidence of Mr. Symons it appears that the qualifications of the teachers in the Yorkshire district are of no higher character. In one case he found that, with a population of 2000 persons, the only instructor in the place, besides the mistress of a dame-school, was an old cripple, the wise man of the county, spoken of with unfeigned reverence by the witnesses examined in this neighbourhood, and who united the offices of schoolmaster and fortune-teller (Report, Mines: App. Pt. I., p. 199, s. 248).

"The station, salaries, knowledge, and qualifications of the teachers," says Mr. Wood, "are anything but what they ought to be, considering the importance of the duty which they have to discharge. In some particular cases attempts have been made by benevolent individuals to introduce a better class of teachers, who have received some degree of training for the office, or who have some natural fitness for it; but the usual statement of the clergymen and other witnesses is that 'the teachers in general are ignorant of their own ignorance, and perpetuate in their scholars their own deficiencies'" (Report, Mines: App. Pt. II., p. H 9, s. 51; Evidence, Mines, p. h 17, l. 26).

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In Durham and Northumberland, it is stated that the teachers have not in general received an education qualifying them to be successful instructors of the young; many of them are disabled workmen, and others teach for a few months of the year, and work in the pits during the other months; their information is very limited, of which the intelligent pitmen complain much. "When an accident has rendered a workman incapable of bodily labour," says Mr. Leifchild, "and reduced him to the condition of a pensioner, he often proposes himself as a candidate for a schoolmastership; and should a vacancy occur in the colliery where his misfortune happened, he deems himself, and is deemed by others, indisputably entitled to the suffrages of all parties; the consequence is, that both the instructed and the instructor drag through the dull round of duties as a burdensome task, to which many of the boys prefer even the labour of the pit" (Report, Mines: App. Pt. I., p. 532, ss. 126, 127).

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In Wales also it is stated that the teachers are not trained, and that they are altogether unfit; and of those in the Forest of Dean and South Gloucestershire Mr. Waring says that, although they

"appear to be at least as well qualified for their duties as most of their class, I am persuaded our public schools will never attain their full utility till they are generally supplied with more perfectly and systematically trained teachers" (Report, Mines: App. Pt. II., p. 10, s. 128). In Scotland alone their qualifications appear to be of a higher kind. "I found from the returns," says Mr. Franks, "that their knowledge is quite adequate to the station they are selected to fill, and in some instances acquirements of a superior character are to be found in those whom a college education or especial training has prepared for the duties they have to discharge: at the same time, many will be found who, venturing on their own hazard, have but meagre qualifications for the task" (Report, Mines: App. Pt. I., p. 398, s. 72).

The method of teaching commonly pursued by these instructors is such as might be expected from their own general want of knowledge, and especially their ignorance of the mind of a Child whose body is exhausted by labour. The teachers in general, says Mr. Fellows, allow the Children to read without seeing that they attach any meaning to the words. "If I called a Child to read me a verse or two, and afterwards asked the meaning of any one particular word therein, in almost every case I have found them at a loss: for instance, I asked a very good reader what was the meaning of the word *weary*; he could not tell: I then appealed to the whole class; at last a boy said he knew—it was a lad who wore his clothes out" (Report, Mines: App. Pt. II., p. 258, s. 83).

"In nineteen out of every twenty instances," says Mr. Symons, "the mind of the Child is as much uninformed, even after a couple of years' tuition, as before it went to school. The notion is inveterately implanted in the mind of the great majority of schoolmasters and schoolmistresses, that comprehension is no necessary part of instruction; and others seem to imagine it a matter of intuition, and are astonished that a child has not learnt what it has never had the means of understanding" (Report, Mines: App. Pt. I., p. 200, s. 257).

It is also stated by Mr. Wood that, from the method of instruction commonly pursued, he found, "on a personal examination of the Children in the several establishments which he visited, that, with the exception of a few rare cases, the amount of information communicated was little better than nothing" (Report, Mines: App. Pt. II., p. H 8, s. 50.)

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From Mr. Leifchild's Report and Evidence it appears that in general the teachers in Durham and Northumberland pursue no regular system, but adopt such modes as best comport with a fluctuating attendance; that attention is enforced chiefly by the strap; and that, of the few pupils in the highest class at a colliery school who can read with any degree of fluency, very few indeed can give the slightest account of the meaning of what they read. And such is the general tenor of the statements made in all the districts (Report, Mines: App. Pt. I., pp. 527 et seq., ss. 88 et seq.).

Inefficiency of Sunday-School Teachers.

Efficiency of
Sunday-
School
Teachers.

It has been shown that the Sunday-school is the only instrument for the education of the Children of the working classes at present in universal use, and that in all the districts it is the chief, and in some populous localities the sole, agent depended upon. Of the efficiency of this instrument as a means of education the following statements, among innumerable others to the same effect, may be cited, as conveying the opinion as well of those whose professional duties have made them best acquainted with the practical working of these schools as of those whom a desire to promote the improvement of the people has induced to pay particular attention to the subject.

South
Staffordshire.

In the returns from South Staffordshire, in answer to the query—Do you consider Sunday-schools sufficient to make up for the loss of instruction by early removal from day-schools?—the clergy uniformly answer—"Certainly not;" "Decidedly not;" "By no means;" and the reasons they commonly assign are, the small number of hours in which it is possible to give instruction in these schools; the want, common to them all, of method and discipline; in many cases the ignorance of the teachers; in all cases the partial attention of the Children, who, having been employed in labour all the week, naturally desire the rest and relaxations of the Sabbath; and the very few subjects on which it is even attempted to give instruction (Mitchell, Report, Mines: App. Pt. I., pp. 25 et seq., ss. 208 et seq., and p. 101, s. 140).

Derbyshire.

Of the efficiency of these schools in Derbyshire the Sub-Commissioner gives the following practical illustrations:—"Has been three years at the Brinsley Church Sunday-school; cannot say his

A B C' (Fellows, Evidence, Mines: App. Pt. II., p. 295, l. 55). *Coal and Mine*
 "Has been four or five years to Baptist Sunday-school; cannot spell horse or cow, and is otherwise very ignorant" (Ibid. p. 294, l. 1). *Inefficient Sunday School Teacher*
 "Has been to Calvinistic Sunday-school four years; can spell neither church nor house" (Ibid. p. 272, l. 70). "Has been at the Methodists' Sunday-school at Ripley five years; only reads *a b, ab*; cannot spell in the least; cannot tell what *dog* spells—he says *gun*" (Ibid. p. 315, l. 18). (See also Nos. 12, 76, 77, 90, 108, 111, 123, 133, 207, 229, 301, 311 et seq.). *Derbyshire*

Mr. Symons states, that on examining the Children in attendance on these Schools he found them to be extremely deficient even in scriptural knowledge; that the masters told him that they do not usually question the Children on what they read, but that they merely teach them to read right on; and the uniform account of the clergymen and other witnesses is, that the Children forget what they learn on one Sunday before they next return to school, very few indeed retaining any kind of knowledge here acquired (Report, Mines: App. Pt. I., p. 197, ss. 233 et seq.; Evidence, pp. 266 et seq., Nos. 160, 224, 256 et seq.). *Yorkshire*

"The greatest difficulty felt in the Sunday-schools, by those wishing to make them the instruments of as much good as possible," states the Rev. W. F. Walker, minister of St. James's, Oldham, "is the want of teachers; some are very good, but they are few. Some few persons of the higher classes have come to teach in them, especially in the girls' schools; but in the boys' schools it is difficult to find any to be teachers who have received other than Sunday-school instruction equally as bad as that which they are alone qualified to convey. Has often felt, with the boys' school, 'I am doing no good.' One effect of this reliance on Sunday-school instruction is, that it brings into the Sunday-schools large classes of Children so young as to be fit only for an infant-school" (Fletcher, Evidence, Mines: App. Pt. II., p. 860, l. 27). *Lancashire*

Mr. Wood reports, that instances presented themselves to him of boys who had attended Sunday-school for years without advancing farther than a knowledge of the alphabet. "Of 82 boys," he says, "whom I personally examined, less than half could read, upon the most qualified use of the term which it is possible to admit. Of the rest many knew their letters. *Five* only of the eighty-two could write their names." And in his evidence he *Yorkshire*

gives an instance in which very unusual pains were taken to instruct the Children; and yet even in this case not one-fourth attained the point of understanding what they read: no attempt at all being made to instruct them in writing (Report, Mines: App. Pt. II., p. H 8, s. 50; Evidence, p. h 26, No. 58).

Of the instruction at the Sunday-schools in Scotland, Mr. Franks says that it is purely of a religious character; that no attempt is made to teach even the commonest branches of a secular education; that the Children are instructed in the Bible, not taught to read; that altogether these schools afford a most inadequate substitute for day-teaching (Report, Mines: App. Pt. I., p. 397, s. 71; Evidence, p. 493, Nos. 311 et seq.). To the same effect is the testimony of all who have given evidence on this subject in every district.

Prevailing Ignorance.

From the whole of the preceding account of the means of instruction accessible to Children employed in coal mines, and of the extent to which those means are practically used by them, no one would expect to find their mental powers as much developed as those of Children in the same station unemployed in labour, and attending during the periods of childhood and boyhood ordinary day-schools; but for the statements made of the grossness of their ignorance, and of their apparent incapacity to comprehend the meaning of the commonest words, and the natures of the commonest things, few can be prepared.

"Few Children in the county of Durham," says Dr. Mitchell, "have ever heard of such places as Birmingham or Manchester or Liverpool, and as few in Staffordshire have ever heard of Durham or of Newcastle. Such words as Scotland, Ireland, France, or America bring no ideas into their minds. The Children to whom only spelling and reading are taught have no materials on which they can exercise thought" (Report, Mines: App. Pt. I., p. 144, s. 217).

"With respect even to the common truths of Christianity and facts of Scripture," says Mr. Symons, "I am confident that the majority are in a state of heathen ignorance. The evidence of the Children exhibits a picture of moral and mental darkness which must excite horror and grief in every Christian mind: I can most conscientiously say that it is anything but an overdrawn one.

Some are indeed better instructed, but of those who work in collieries there is not above one out of three, or, *at most, two out of five*, who can answer the commonest questions relative either to scriptural or secular knowledge. I unhesitatingly affirm that the mining Children, as a body, are growing up in a state of absolute and appalling ignorance; and I am sure that the evidence I herewith transmit, alike from all classes, clergymen, magistrates, masters, men, and children, will fully substantiate and justify the strength of the expressions which I have alone felt to be adequate to characterize the mental condition of this benighted community' (Report: App. Pt. I., p. 196, s. 225).

"Throughout the whole district of the coal-field," says Mr. Scriven, "the youthful population is in a state of profaneness and almost of mental imbecility" (Report, Mines: App. Pt. II., p. 73, s. 96).

"The ignorance and the degraded state of the colliers and their Children," says Mr. Kennedy, "are proverbial throughout this district. They are uneducated, ignorant, and brutal; deteriorated as workmen and dangerous as subjects" (Report, Mines: App. Pt. II., p. 183, s. 267, and p. 190, s. 308).

"Such was their ignorance, obstinacy and suspicion," says Mr. Leifchild, "that several Young Persons absolutely refused to make any statements whatever. Boys of seventeen or eighteen were repeatedly found to be either astonishingly ignorant or wilfully stupid, and could give utterance to nothing more than some sweeping condemnation of their labour, and clamorous declaration of the insufficiency of their remuneration, while the answers they returned to questions upon religious subjects were too profane to admit of publication, their only knowledge of sacred subjects being derived from their daily desecration in the works" (Report, Mines: App. Pt. I., p. 515, s. 10, and p. 533, s. 142).

In the coal-fields of Wales, Mr. Franks states that "the ignorance of the collier population is such as cannot be described" (Report, Mines: App. Pt. II., p. 487, s. 96).

But nothing can show their mental state in so striking a manner as the evidence derived from the examination of the Children themselves by the Sub-Commissioners:—"I go to school five nights in the week, and read a chapter in the Bible. I never read any other book. I do not remember anything

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revealing
ignorance.
urham.* about Jerusalem. I have seen the name of David. I do not know what he was. I do not know anything of Moses. I never heard of France. I do not know what America is. I never heard of Scotland, nor of Ireland. I cannot tell how many days in a year. I cannot tell how many weeks in a year" (Mitchell, Evidence, Mines: App. Pt. I., p. 108, l. 54). To the same effect are the answers of many other Children, particularly Nos. 73 and 74, (p. 108).

uncashire. James Taylor, a clever, but, like his companions in labour, an un instructed child, eleven years of age, "Has heard of hell in the pit, when the men swear; has never heard of Jesus Christ; has never heard of God, but has heard the men in the pit say 'God damn thee.' Does not know what county he is in; has never been anywhere but here, i' th' pit, and at Rochdale; never heard of London: has heard of the Queen, but dunnot know who he is" (Fletcher, Evidence, Mines: App. Pt. II., p. 849, l. 56). Some of the better men in the same neighbourhood say: "There are plenty of married up-grown men about here, of thirty and forty years of age, who cannot tell a word in the Bible, nor reckon the wages which they have to receive, and it is they who are the worst characters; they will swear very heavily, and drink terribly—drink what their families should have. Some of these declare their disbelief in a future state, and their opinion that they will die like a dog, and then be done wi'. When they miss Sabbath-school and week-day-school too, they become hardened, and they canna' believe, and will na' believe; such men are dirty in their habits and degraded in their conversation, delighting only in bawdy talk. They say their fathers disbelieved, and did as they do, and this is true, and from the same causes that are affecting the poor Children now" (Ibid. p. 855, l. 10).

orkshire. Of the state of ignorance of the colliery Children in the West Riding of Yorkshire, Mr. Symons gives, among many others, the following examples:—"Three girls (all employed in the pits), of the ages of sixteen, fifteen, and eleven, were examined, not one of whom could read easy words without constant spelling, and two of whom knew their letters imperfectly. I found two of these girls perfectly ignorant. They had no knowledge even of the existence of a Saviour, and assured both the curate and myself that they had not heard about Christ at all" (Symons, Report,

Mines : App. Pt. I., p. 200, s. 253). A girl eighteen years old :— c
 “I never learnt nought. I never go to church or chapel. I have never heard that a good man came into the world, who was God’s Son, to save sinners. I never heard of Christ at all. Nobody has ever told me about him, nor have my father and mother ever taught me to pray. I know no prayer : I never pray. I have been taught nothing about such things” (Evidence, Mines, p. 252, ll. 35, 39). “The Lord sent Adam and Eve on earth to save sinners” (Ibid. p. 245, l. 66). “I don’t know who made the world ; I never heard about God” (Ibid. p. 228, l. 17). “Jesus Christ was a shepherd ; he came a hundred years ago to receive sin. I don’t know who the Apostles were” (Ibid. p. 232, l. 11). “Jesus Christ was born in heaven, but I don’t know what happened to him ; he came on earth to commit sin ; yes, to commit sin. Scotland is a country, but I don’t know where it is. I never heard of France” (Ibid. p. 265, l. 11). “I don’t know who Jesus Christ was ; I never saw him, but I’ve seen Foster, who prays about him” (Ibid. 291, l. 63). “I have been three years at a Sunday-school. I don’t know who Apostles were. Jesus Christ died for his son to be saved” (Ibid. 245, l. 10). The following Children and Young Persons of all ages say that they don’t know who Jesus Christ was, and have never heard of him (pp. 232 et seq., Nos. 28, 36, 63, 77, 89, 107, 114, 115, 117, 157, 173, 174, 192, 225, 229, 237, 241, 250, 259, 269, 279, 285, 291, 297).

Similar are the answers given by the colliery Children examined in the neighbourhood of Halifax :—“I don’t know who God is” (Scriven, Evidence : App. Pt. II., p. 122, l. 22). “I have heard of God and Jesus Christ, but I cannot tell who that was. If I died a good girl I should go to heaven, &c. They told me that at the school yesterday. I did not know it before” (Ibid. p. 122, l. 23). “I don’t know if he (the man for whom he hurried, who was his uncle) is related to me ; I don’t know what you mean by uncle or cousin. I never went to day-school or Sunday-school. I cannot read or write. I never heard of Jesus Christ. I don’t know what you mean by God. I never heard of Adam, or know what you mean by Scriptures. I have heard of a bible, but don’t know what ’tis all about. I do not know what would become of me hereafter if I am wicked ; I have never been told. If I tell a falsehood or lie, I tell a lie : it may be good or bad, but I don’t know the difference” (Ibid. p. 121, l. 30). Employer : “You

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'recalling
ignorance.* have expressed some surprise at Thomas Mitchell (the preceding witness) not having heard of God. I judge there are very few colliers hereabout that have" (Ibid. p. 122, l. 1).

berland. Of the Young People examined in Cumberland, the Sub-Commissioner states that the evidence of the child John Holmes (322) is a very fair sample of the general state of education among these benighted Children. "'I don't go to Sunday-school, because I don't like, and I'd rather play. I used to read the Testament. I don't know who Jesus Christ was. I never heard tell of God neither. [One Child said he had, for the men damned at him very often.] I am taught to say my prayers, and I say them. I don't know who I pray to.' The education of a parrot is precisely similar, and quite as beneficial to the recipient" (Symons, Report, Mines: App. Pt. I., p. 302, s. 24).

*North Dur-
ham and
Northum-
berland.
Scotland.
Wales.* Perfectly similar is the result of the examination of the collier Children made by the Sub-Commissioners in North Durham and Northumberland, in the East and West of Scotland, and in North and South Wales.

Actual Moral State.

*Actual Moral
State.
—
South
Yorkshire,
&c.* With regard to their actual moral condition, according to Dr. Mitchell, the moral state of the Children and Young Persons in the districts examined by him is in remarkable contrast with their good physical condition (Mitchell, Report, Mines: App. Pt. I., p. 23, s. 187).

Derbyshire. Mr. Fellows reports that in Derbyshire the moral condition of the Children and Young Persons depends much on the character of the butty and overlooker; that some of these men are class-teachers among the Methodists, and will not allow a bad example to be set the Children, while others are profane and immoral, encouraging in the Children swearing and every other kind of vice; but that, after his examination of the district, he entertains a much higher opinion of the colliers, both men and Children, than he did from hearsay (Report, Mines: App. Pt. II., p. 257, ss. 60 et seq.)

Yorkshire. Mr. Symons states that swearing and indecent language are very prevalent among the Young People in the coal-pits of Yorkshire; and that they are not more often guilty of vice and crime he attributes to their hard work, their close confinement while at work, and their weariness when their work is over,

which renders rest the greatest luxury (Report, Mines: App. Pt. c I., p. 196, ss. 225, 226).

Mr. Kennedy states that in Lancashire the degraded moral condition of the colliers and their Children is proverbial throughout the district; and that this is proved by the testimony of all classes of witnesses examined by him. Thus the Rev. Joshua Paley, incumbent of Pemberton, Wigan, says:—"There is generally awful profligacy prevailing amongst them. The habits of the adult colliers are so bad that the utmost difficulties are thrown in our way of communicating religious instruction. Their habits of intemperance are so confirmed, and the facilities afforded for drinking are so many, that our good intentions and labours are frustrated. The younger endeavour to imitate the example and to assume the manners and habits of those who are older. Young Persons of both sexes, having such temptations, and being so frequently encouraged to, or not being discouraged from, attending public-houses and beer-shops, become early habituated to scenes of drunkenness and obscenity" (Kennedy, Report: App. Pt. II. p. 183, ss. 267 et seq.).

A similar account is given by the Rev. Benjamin Powell, incumbent of St. George's, Wigan (Ibid. s. 273, p. 184).

Mr. Halliwell, the relieving officer of Wigan, says of the colliers and their Children in this district:—"Generally speaking they are a class of people ignorant and illiterate, and they are scarcely ever in the habit of visiting places of worship. The alehouses are thronged on Saturday nights and Sundays by colliers and quite young boys. I have met them going home on the Sunday morning after their Saturday night's debauch, and returning in crowds to the door of the public-house as early on the Sunday morning as the doors were open; fighting and breaches of the peace are constantly occurring amongst them; and frequently when I have been in bed I have heard disturbances made by drunken colliers in the streets" (Ibid. p. 185, s. 274). See also the evidence of Mr. Roscoe, a coal-proprietor, Rochdale, Report, s. 277; Mr. Potts's, No. 33; John Millington, 6; John Halliwell, 98; Benjamin Miller, 7; Joseph Hatherton, 23; John Houghton, 38; John Oldham, 22; Mr. Winstanley, 105; Mr. Sellar, 106; and schoolmasters' evidence, and evidence on the state of education, *passim*.

*al and Iron
Mines.* "All that I have seen myself," says the Sub-Commissioner,
*ctual Moral
State.* "tends to the same conclusion as the preceding evidence; namely,
ancaashire. that the moral condition of the colliers and their Children in this district is decidedly amongst the lowest of any portion of the working-classes" (Ibid., Report, s. 278 et seq.).

Oldham. Similar is the account given of the moral condition of the collier population in the neighbourhood of Oldham. "The colliery workers," says Mr. Fletcher, "are, in manners and habits, the rudest portion of a dense population proverbially rude and ignorant; one almost uninfluenced, morally, by the example or the labours of any higher class; and one for the moral and intellectual cultivation of which there is, in reality, no public provision. This population is proportionately prone to exhibit instances of ferocity and of gross self-indulgence: and yet the universal testimony is to the improvement which has already taken place upon the manners of the passing generation; and a considerable number of the colliers are men of better habits, attached to the ministry of the Church, or to the several Dissenting congregations. But the three Church ministries in the town, and the various Dissenting preachers, are insufficient to the moral reformation of so vast a population. The Sunday-schools, unhappily, instead of being merely an ecclesiastical organization for the religious instruction of the young, are regarded as '*the schools*,' and are mainly relied upon for secular instruction" (Report, Mines: App. PII., p. 833, ss. 63, 64).

*urham and
Northum-
berland.* The religious and moral condition of the Children, and more particularly of the Young Persons employed in the collieries of North Durham and Northumberland, is stated by clergymen and other witnesses to be "deplorable." "Their morals," they say, "are bad, their education worse, their intellect very much debased, and their carelessness, irreligion, and immorality" exceeding anything to be found in an agricultural district (Leifchild, Report, Mines: App. Pt. I., p. 530, s. 110; Evidence, Nos. 795, 530, 500, 493, 668).

*East of
Scotland.* The leading characteristic of the collier community in the East of Scotland is stated by Mr. Franks to be an absence of energy, and to this he attributes their freedom from crime. "The district over which my inquiry has extended," he says, "presents the aspect of a laborious, uneducated, and uncomplaining population

—a population of few vices—in knowledge, both religious and intellectual, greatly inferior to all other classes; in moral courage and enterprise inferior; in taste for comforts, even of a domestic nature, inferior; and yet, abject as their condition is, it presents some favourable features of comparison with others, whose condition, as moral and intellectual beings, is undoubtedly superior. They are always respectful, and sometimes warmly attached to their employers, and exhibit none of the pert and discourteous behaviour of the manufacturer; they listen with cheerfulness and much seriousness to the ministers of the gospel who come among them; they show, and probably feel, less jealousy of their superiors in rank and fortune than is generally shown by other artisans; and they intermeddle less with politics. My labours have been pursued,” he continues, “amongst a population, including 7000 to 8000 heads of families, leading a mere animal existence, without religious character, without political bias, without political representation—in short, without any political status whatever” (Report, Mines: App. Pt. I., p. 405, ss. 110, 111).

According to Mr. Tancred, a large portion of the colliery and ironwork hands in the West of Scotland are living in an “utterly depraved state;” in a condition of “moral degradation” which is “entailing misery and disease on the people themselves and disorder on the community;” and he attributes the “cause and origin” of this state of things to “the stationary condition of our religious and educational establishments among a rapidly increasing people. All the consideration,” he says, “I have given the subject, leads me to the conclusion that there is nothing which necessarily causes a peculiar amount of evil in a manufacturing or mining population, but that the means which are found available for moral purposes in rural districts have only to be extended and thoroughly carried out, to raise the moral character of our artisans at least as high—I hope much higher—than that of the average of agricultural labourers. Though the fearful amount of corruption already engendered by neglect cannot at once be corrected, yet in new seats of industry, which increasing facilities of communication are every day raising up, we may prevent the recurrence of the disastrous state of things which we now deplore; and ultimately we may hope, by the use of the appointed means, to be rewarded by seeing our manufacturing population becoming as virtuous and intel-

*al and Iron
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tual Moral
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North
Wales.* ligent, as they now are allowed to be, beyond all others, valuable as workmen" (Report, Mines: App. Pt. I., p. 345, ss. 102 et seq., and p. 353, s. 122).

The moral and religious condition of the mining population in North Wales, only a few years ago, was perfectly unexampled in this country. "The colliers and miners," says Mr. H. H. Jones, "were a dissipated and almost a lawless class; the colliers especially, the miners in a less degree. They spent their leisure hours, and the Sabbath in particular, in the public-houses, in noise and riot; assembling together along the road-sides, or sauntering in the adjacent fields; they had dog-fights, bull-baitings, and fights and broils amongst themselves. They would take delight in annoying all passers-by, and they were great trespassers on neighbouring fields and plantations. The Children, following the example of parents and friends, were equally bad, and often exceeded them in mischief and vice; as for attending divine worship or Sunday-school, such things were scarcely thought of; and swearing and profanity of all sorts were general" (Report, Mines: App. Pt. II., p. 370, ss. 39 et seq.).

*South
Gloucester-
shire.*

Of the colliers in the South Gloucestershire coal-field, Mr. Waring says, that "formerly they were the terror of the surrounding neighbourhoods, and for gross ignorance, rudeness, and irreligion were almost without parallels in any Christian community."

*Forest of
Dean.*

And of those of the Forest of Dean, he says, that they lead a secluded and clannish life, violent and shrewd, but with little respect for the property of others, concubinage being a prevalent substitute for marriage, and illegitimate births so common as to attract no notice. "The religious observance of the Sabbath was scarcely thought of; rural games, or vicious revelry, being the regular occupations of the sacred day, and a profound ignorance of all moral obligations pervading a majority of the population. Churches there were none, except on the extreme outskirts—the great area of the Forest being extra-parochial, though very populous; and schools were almost unknown" (Report, Mines: App. Pt. II., p. 8, ss. 99 et seq.; and p. 35, s. 51).

So great is the change effected in this population, that the colliers of these districts, as a body, are now exemplary in the discharge of their social and moral duties, and are as remarkable for their attendance on religious worship as they were for their

former desecration of the Sabbath by trespasses, outrages, and c
savage amusements, and revels. "The task of reform," says Mr.
H. H. Jones, " was undertaken by the Dissenters ; and unpro-
mising, nay, almost hopeless, as it appeared, being persevered in,
has changed the character of the people, and accomplished more
than could have been expected. The Dissenters have for many
years worked most zealously in bringing the people to relish
religious instruction, in promulgating the Scriptures, and in cul-
tivating among the lower and middle classes a knowledge of the
doctrines of Christianity. The success of this zeal is everywhere
exhibited in the immense number of chapels which have been
built within the last 30 years. The money to build them has
been drawn from the pockets of the farmers, small tradesmen, and
the working orders, by means of penny subscriptions in the chapels,
to which even the boys who are earning wages contribute. It is
also observable in the immense number of attendants at the cha-
pels, in the desertion of the churches, and in the improved moral
and religious habits of the people.

"Churchmen are awakening from the supineness which they
had given way to in North Wales : they are making great and
laudable exertions to render their talents and their ministry useful
and extensive. Notwithstanding these instances of individual zeal,
the Church has but small provision, either as regards places of
worship or ministers of religion, in places where they may be said
to be most required, namely, where bodies of people, who work
together in masses, have come to reside, and have built large
villages where formerly there was scarce a house. What the
Established Church has not yet been able to supply, the Dissenters
have : chapels have everywhere been built by them, and their
efforts, always unsupported, and often scoffed at, by the clergy,
gentry, and influential proprietors, have been attended with signal
success, and prove how much depends on careful and persevering
instruction whether those who are brought together in numbers by
large works shall be moral, religious, and of decent conduct, or
brawlers, drunkards, profane, and obscene" (Report, Mines : App.
Pt. II., p. 370, ss. 41 et seq. ; p. 374, ss. 73 et seq.)

Of the change effected in the collier population of South Glou-
cestershire and the Forest of Dean, Mr. Waring says :—" The
labours of those great reformers of life and manners, the celebrated

Wesley and Whitfield, began a work which has been making progress ever since, in the hands of not only their disciples, but those of the National Church, happily aroused and stimulated by their example. The consequences are striking to those who knew the country forty years ago, and I count myself among the number; remembering the frequent scenes, and the continual dread of outrages on property and public peace, which then prevailed. You could not ride through some of the villages and hamlets without being insulted by the boys, who would throw stones at both horse and rider without provocation. 'The Kingswood colliers' was then a phrase that conveyed every idea offensive to civilization, order, and religion. At the present period there is, perhaps, as much decorum in the manners of the population as is witnessed in the generality of rural districts; and the numerous places of worship are well attended, many of the colliers being members of various religious societies. Any open desecration of the Sabbath is considered reproachful, even among the non-professing portion of the community who are of sober habits. National schools have long been established in connexion with most of the parish churches, and have produced an improvement in the rising generation proportionate to the extent of their operation."

"Instead of a region nearly destitute of Christian privileges, the Forest is now adorned with three free churches, and their respective school-houses. A fourth public school has recently been built and endowed. At Cinderford and Bilson much religious benefit has been conferred on the large population connected with the mines and iron-works by the labours of the Wesleyan and Independent Dissenters, who are numerous and influential on that side of the Forest. On its south-west border, or nearly the opposite side, the Baptists prevail; and at Coleford particularly constitute a large, respectable, and very useful body, several of the most opulent coal-owners being of that persuasion."

"Chapels of ease and schools have been established at Coleford, Clearwell, and Bream; the first and second in connexion with the parish of Newland, and the third with the extra-parochial church of St. Paul at Parkend. English Bicknor National School, on the skirts of the Forest, instructs many of the Children from the coal-district near Lydbrook, and those employed at the tin-works in that village. It has in connexion with it two of those

valuable but much-neglected institutions, infant-schools. The national schools within the Forest borders altogether offer accommodations for about 1500 Children, and actually educate, at this moment, about 850" (Report, Mines: App. Pt. II., p. 35, ss. 51 et seq., and p. 9, ss. 119 et seq.).

Of the collier Children in South Wales one clergyman says that "both sexes are allowed by their parents to drink, smoke, swear, and talk obscene language, before they are twelve years of age; and that, as long as this is the case, they cannot be expected to come up to the morality even of Canadian savages." All classes of witnesses concur in representing the moral state of this portion of the population as very low. "Drunkenness and petty thieving" are stated to be "the besetting sins" of the whole of this mining district. "Even among the respectable part of the people there is rather a loose kind of morality, which springs from an imperfect education, want of thought, early habit, and prejudice. A man who would scorn to receive pay for work which he had not done, and who would return me a sovereign paid him instead of a shilling, will yet think it no sin to break up my hedges and use them for firewood, to cut down my brushwood to heat his oven, or steal my coal: these things are happening continually. A local preacher was sent from a neighbouring work to the House of Correction for the latter offence. Notwithstanding the numerous chapels of the Dissenters, their frequent preaching and Sunday-schools, there is yet something else wanted to remove the ignorance and to raise the tone of morality among the working-classes of this district" (R. W. Jones, Report, Mines: App. Pt. II., pp. 588, 589, ss. 55, 58. See also Franks, Report, Mines: App. Pt. II., p. 486, ss. 93 et seq.; Evidence, p. 506, l. 45).

IX.—MORAL CONDITION OF THE CHILDREN AND YOUNG PERSONS EMPLOYED IN MINES OF TIN, COPPER, LEAD, AND ZINC.

Instruction.

The intellectual, moral, and religious condition of Children and Young Persons employed in the mines of tin, copper, lead, and zinc in the Cornish district, affords a gratifying contrast to that of the same class in coal mines. Many instances occur, indeed, even in this district, in which the education of the Children is either wholly neglected before they are employed in mining labour, or

in, in which they are removed from school before any impressions can have been made upon the mind sufficiently deep and permanent materially to influence their future dispositions and conduct. But these exceptions to the rule are confined to the comparatively rare cases of extreme poverty, or of extraordinary improvidence and selfishness on the part of the parents.

The whole of the evidence shows that there is a vast intellectual and moral superiority in the Children employed in mining labour compared with that of Children employed in colliery labour, for the twofold reason that mining labour commences at a considerably later age than colliery labour, and that in its own nature it is less oppressive. It has been shown that Children are employed in coal-mines from five years old and upwards, and that the great majority are in regular and full work at eight years old, whereas in the mines of the Cornish district no examples were found of Children employed in underground labour under eight years of age, and they do not generally begin such work until they are ten or twelve years of age.

It is stated that the great majority of the mining Children in this district are in regular attendance at day-schools for some years before they are sent to the mines. "The secular education of the Children," says Dr. Barham, "is begun at the age of five or six at day-schools, to which a very large majority of them are sent for a longer or shorter period" (Report, Mines: App. Pt. I., p. 801, s. 239). "A certain number of boys," he continues, "more in some districts than in others, but in all cases forming a small proportion to the rest, attend evening-schools. In many instances these are open only during the winter months (Ibid. p. 802, s. 243). There is no reason to believe that the severity of labour in the ordinary distribution of time and work at the mines at all incapacitates the Children and Young Persons for receiving instruction at the end of the day. But those who have to walk some miles to their homes, probably the greater number, can do little more than get their supper and go to bed. Such at least should be the case with the younger Children, in order to ensure them eight hours of rest. In the evening-school at Tucking-mill (Evidence, p. 837, l. 24), though the homes of the boys, and the mines at which they had been working, were both close at hand, it was necessary to postpone the supper till they returned from school, between nine and ten at night. In the winter, when

the work closes with the daylight, to allot an hour or two in the evening to school is more easy, and the boys have not complained that they feel the attendance irksome. Evidence to a contrary effect may be found, p. 837, ll. 3, 22; p. 843, l. 31" (Ibid. p. 806, s. 257).

In the examinations of the Children through the whole of this district no instances are recorded, and probably none could anywhere be found, of the extreme ignorance which is the general character of the colliery Children. "Reads well," "reads pretty well," "can write," "does a little ciphering," are frequent notes of the Sub-Commissioner on his questioning the Children, and testing their competency, in striking contrast with the notes of the Sub-Commissioners in the colliery districts. Accordingly, from an abstract of the returns made on the Tabular Educational Forms, it appears that a large majority of the Children and Young Persons of both sexes can read; and though Dr. Barham suspects that, with respect to a great number, this may be true, although only to a very small extent, yet he states that the number who cannot read at all is not very great. "Having under my eye a body of about 400 miners," he says, "I desired those who could write their names to separate themselves from the rest. About two-fifths of the party did so. This was in the neighbourhood of Camborne, where the means of instruction are more than commonly accessible, and in a mine the returns from which show a more than average number of the boys employed able to write. In the Levant Mine, in the parish of St. Just, in the Western District, of 30 men, taken as they followed each other up from underground, 16 wrote their names fairly, and 1 badly; of the remaining 13, 4 are entered as unable to read, and 5 as reading badly" (Ibid. p. 758, s. 92). Now in the returns from the coal-fields of South Durham, while the greater number of the collier Children report that they can read an easy book, not one-fourth part have signed their names. In a coal-mine in Yorkshire, out of 219 Children examined at the foot of the mine while at their work, only 31 could read an easy book, not more than 15 could write their names, and the whole of the remaining number were incapable of connecting two syllables together. Thus, while more than one-half of the adult Cornish miners could write, not 1 in 17 of the Yorkshire collier Children were able to do so,—a result

which not only shows the superiority of the former to the latter, but indicates that education can have made but little progress among the collier population in Yorkshire during the present generation.

Still the state of education, even in the Cornish district, is far, indeed, from being satisfactory, and the direct instruction which has been received by the existing race of miners is upon the whole very small in amount. All classes of witnesses concur in stating that the Children are in general removed from school before they have been sufficiently grounded in the first rudiments of knowledge to make any progress in after-life. The clergymen and other witnesses say,—“ The first principles have not been sufficiently impressed on their minds to stimulate them to self-tuition, and the little they have learnt is soon forgotten.” “ It often happens that at the time they leave they have not learnt to read with ease, and, not liking the trouble of learning when not compelled, they soon give it up altogether; this of course would operate to their injury both in a temporal and spiritual point of view; further, they lose the advantage of being able to write.” “ They are not on an equality with those in their own class who have been benefited by a more perfect education ” (Ibid. p. 804 et seq., s. 251). “ Their moral condition,” says the Sub-Commissioner, “ would be improved to a most important extent by their being subject to the influence of a sound education till there was reason to believe that the mind was so far developed that the value of what had been learnt would be appreciated, and self-cultivation might be expected to follow; and, what is of greatly more consequence, till there was something like security that the principles of religion and virtue were so firmly rooted that they could not readily be afterwards forgotten, and that the ordinary temptations to evil courses might be withstood ” (Ibid. p. 811, s. 285).

Of the qualifications of the teachers the clergymen and other witnesses in this district say,—“ Not any of them can be considered ‘ persons of education.’ One or two may be able to teach elementary mathematics and algebra; also a little of land-surveying. None of the teachers have been trained. One or two have spent a few weeks at a model-school.” “ Of the several teachers connected with schools in this district (St. Ives), not more than *three* I consider qualified for their functions. Some of the re-

mainder are grossly ignorant of elementary education, and have probably resorted to tuition, as being easier than manual labour." From the parish of Illogan, in the Central District, and the most amply supplied with schools, the return, after stating the branches of instruction in the boys' schools, says, "The teachers have not had the advantage of much education." About Redruth the teachers are said to be "for the most part persons who have become unable to follow other employments, and who, without any particular qualifications, keep school, as the easiest way of obtaining a livelihood." "In the neighbourhood of St. Agnes, in the north-east of this district, it is said of the teachers that not more than one has been trained; and from the greatest mining neighbourhood in the eastern district, a clergyman writes, "I think there is only one man in the parish qualified to teach the youth as they ought to be taught" (Ibid. p. 801, s. 240).

From the day when the Children of either sex go to work in the mines they must of course cease to attend day-schools; "and with regard to the vast majority," says the Sub-Commissioner, "all teaching, except that at the Sunday-school, is at an end" (Ibid. p. 802, s. 242). "But the total inadequacy of the instruction which the Sunday-school is capable of affording to the fulfilment of the ends of education is admitted, without any exception, by the parties, almost all of them clergymen or dissenting ministers, who have replied to the query on this subject. They have universally stated that they are not at all sufficient, by themselves, for effecting these objects, even with respect to those who habitually attend them, whilst a great number either go very irregularly or not at all" (Ibid. p. 800, ss. 237, 238).

It is impossible to consider the present state of the mining population in this district, as shown in the evidence now collected, without being satisfied that, in addition to the many benefits that would be conferred on the individuals themselves, no inconsiderable national advantages would arise from giving to the Young People to be engaged in these mines an efficient education, suited to their station and employment. But of the difficulty, not to say the impossibility, of accomplishing this object by private individuals, however earnest and generous their efforts, and however powerful their influence in their own immediate neighbourhood, one of the most striking instances that can well be conceived is

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that afforded by the fate of the interesting and important experiment made by Sir Charles Lemon:—"For two seasons," says Dr. Barham, "1. A preliminary course of instruction in elementary mathematics, in the theory and practice of land and mine surveying, and in the construction of plans and surveys, and in mechanical drawing, by an able teacher; and subsequently,—2. Scholastic courses of a more advanced character, in mathematics and mechanics, by professors from King's College, London; and in chemistry and mineralogy, by a gentleman eminent for his knowledge in those departments, were provided, at Truro, at a very small charge to the pupils. Almost the whole cost of this educational experiment was borne by Sir Charles Lemon; and when, at the close of the second year's instruction, the test of a public examination had shown that a great amount of practically valuable knowledge, of an order much higher than had been previously within reach of boys destined for mining employments, had been acquired by boys of that class very rapidly, and under many disadvantages, the honourable baronet proposed to endow an institution, which might permanently furnish a complete education of an analogous kind, with a sum of 10,000*l.* or even 20,000*l.*, and, besides, to contribute largely to its first foundation, provided the adventurers in mines should testify their approval of the establishment of such an institution by assenting to the levying of a tax of one half-farthing in the pound sterling of value on all metallic minerals raised in Cornwall during twelve years.—A majority of the adventurers declared themselves opposed to the imposition of this tax, and, consequently, Sir C. Lemon's contingent offer of endowment was withdrawn, and his experiment terminated. That experiment was, however, enough to prove, first, that boys taken from the class of underground miners might be readily furnished, by scholastic instruction, with the means of improving their own condition, and facilitating the processes of mining; secondly, that there is no reason to apprehend, as was apprehended, that such instruction would give rise to a distaste for underground employment—for the pupils have returned, even with zest, to that kind of labour; and, thirdly, nothing could more clearly prove, than the apathy with which that experiment was received, that the need of such instruction is great" (Ibid. p. 811, s. 286.)

The means of instruction provided for the Children and Young Persons employed in the lead-mines of the Alston Moor District, in Durham, Northumberland, and Cumberland, are much more ample even than in the Cornish district. Schools of a higher character than common abound in all the places in which this mining population is fixed. "The education," says one of the witnesses, the general mining agent to the London Lead Company, "includes reading, writing, and arithmetic; and the Children are also taught geography, natural history, and other branches of knowledge calculated to expand their minds and give them a taste for reading. The girls are taught sewing and knitting. The parents are required to send their Children from six years of age until eleven throughout the year; and in the winter, when the ore-washing operations are not carried on, the boys must come till fourteen. We allow Children to attend under six, if the parents choose to send them" (Mitchell, Evidence, Mines: App. Pt. II., p. 757, l. 44).

*Mines of Tin
Copper, Lead
and Zinc.*

Instruction.

*Durham,
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berland,
Cumberland*

"The means of education," states another witness, "are sufficiently ample for the population. In the town of Alston is the grammar-school, the master of which must be acquainted with Latin; but he gives a general education; it has a small endowment. The Greenwich Hospital give an annual sum as well, and the pupils pay moderate fees. We have a charity-school, supported by subscription, and no charge is made for education. There is a school kept by a master on his own account. The London Lead Company supports a school at Nenthead for boys and for girls, with a master and mistress, which is numerously attended. The workmen's Children are not charged any fee, and only a very small fee is paid by the Children of other persons. There is another school at Nenthall, which is chiefly supported by the Greenwich Hospital and Hudgill Burn Mining Company, and small fees. There is a small school at Garrigill Gate, supported by endowments and an annual sum from Greenwich Hospital. There is a school at Tynehead, which is partly supported by an annual sum from Greenwich Hospital, and the rest by fees. There is one supported in the same way at Lead Gate. There are also several schools for Young Children, taught by widows. We have in the town four Sunday-schools, six in the other parts of the parish, and they are all exceedingly well attended" (Ibid. p. 767, l. 25).

"In the London Lead Company's schools are used 'The In-

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structor, or Progressive Lessons in General Knowledge,' published by the Society for promoting Christian Knowledge; and in the week-day schools, as well as in the Sunday-schools, religious instruction is given through the medium of the Scriptures, which the Children are taught to read, and in which they are daily examined, so as to lead them to a better comprehension thereof. They also commit to memory Catechisms containing an explanation of the doctrines in which all Christians are agreed, but carefully excluding everything of a sectarian or party character. They also undergo frequent catechetical examinations at the week-day schools. When a Sunday-school scholar is able to pass the Bible examination, and is consequently liberated from further school attendance, a donation of a Bible is made to the scholar by the Company as a reward for his attention. The choice of the place of religious worship at which the Children attend on the Sabbath is left to their parents, and there is no limitation as to sect" (Ibid. p. 757, l. 60).

"As for libraries," says the Sub-Commissioner, "there is one belonging to the Mechanics' Institution, and the members have the privilege of taking home the books; there are also four libraries in the town of Alston, and altogether in the parish the libraries are seven in number, of which the books are circulated. There is a reading-room at the Mechanics' Institution, and occasionally there are lectures, some gratuitous and some paid for. Many of the members are working miners, as is the case with the libraries. Alston, small as it is, boasts of its agricultural society and its annual cattle-show for prizes, which is particularly noted for black-faced sheep of their own district. I procured the catalogues of several libraries, and the books are such as to convey valuable information, and are far superior to most of the works which are found in the catalogues of the institutions called literary and scientific, in and about the metropolis" (Ibid., Report, Mines : p. 753, ss. 291-293).

The educational returns from this district show an extraordinary extension of education among the Children and Young Persons employed in labour. For example, out of 432 boys and Young Persons under eighteen years of age, employed by Mr. Beaumont, 415 are stated to be able to read an easy book, and 291 have signed their names. "And many of those who have not signed

their names," says the Sub-Commissioner, "are still attending to their education in winter, and may yet acquire the art of penmanship. This return shows a much more favourable state of things than in other parts of England" (*Ibid.*, p. 752, s. 283).

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From this same return it appears that, out of this number of Young People (432), 419 regularly attend public worship, and 270 attend Sunday-schools. "To every place of worship I believe, without exception," says Mr. Walton, secretary of the Mechanics' Institution, "there is attached a Sunday-school, and the great proportion of the Children of the parish attend one or other of them. We see the good effect in the behaviour of the Children" (*Ibid.*, Evidence, Mines: p. 768, l. 17).

"The Children," says Mr. Bainbridge, mining-agent to the London Lead Company, "are all required to attend the Sunday-school until they are able to pass a Bible examination. They are also required to attend some place of worship twice every Sabbath. The books are found by the Company, both for the day-school and Sunday-schools. We have a person at each place of worship who gives tickets to the Children who attend, and they are delivered to us the following Sunday at the Sunday-school, and we keep an account" (*Ibid.* p. 757, l. 55).

In Scotland, the mines of Leadhills and its vicinity have long been remarkable for their superiority in intelligence, and the advantages of education which they have secured to their Children. Scotland

"Leadhills is remarkable," states the Rev. John Hope, its minister, "for the institution, by its mining workpeople, in 1741, of a library of circulation, the first established by mechanics in Scotland, and apparently the first in the whole kingdom. It was instituted entirely by the miners themselves, and wholly at their own suggestion, although of course the Hopetoun family, to whom the place belongs, gave the project encouragement. From their situation among the mountains, and from the badness of the roads, the miners found themselves separated from all ready communication with the rest of the world, and this library was the only means of learning anything about it. They then worked only six hours a-day, had much spare time on their hands, were much superior in moral feeling to the people employed in other public works, and possessed of the pecuniary means of supplying the want of mental occupation which they thus found. The rural

nos of Tin, population, not engaged in mines or manufactures, are here, as
 per Lead, elsewhere, a well-conducted, orderly people, some of whom are
 and Zinc, earnest readers of such books as come in their way, and all can
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“ Indeed the desire on the part of parents to have their Children well instructed is perhaps as remarkable now as ever ; an instruction which they have pride in giving to them, not less on religious and moral than on worldly grounds, though undoubtedly the latter have great influence. This desire was perhaps stronger here many years ago than it is now—a result partly brought about by the poverty of the parents, which compels them to take their Children away from school much earlier than they did 30 years ago. This deficiency is partly supplied by the improvement in the parish-school itself, for instruction in which the Children are themselves exceedingly eager. The increased exertions of the clergy and the schoolmaster seem rather to deaden the exertions of the parents in this department, by rendering them unnecessary, than to foster them by encouraging their co-operation ” (Fletcher, Evidence, Mines: App. Pt. II., p. 871, l. 3). In 1835, when the catalogue of this library was printed, the miners' library consisted of 1623 volumes (since increased to 1800), of which 471 were divinity, 177 voyages and travels, 324 history, 177 arts and sciences, 87 philosophy and letters, 47 poetry, 212 novels, romances, &c., and 138 miscellaneous.

The present state of education in this and the neighbouring poor and remote village of Wanlock Head, as described by Mr. Fletcher, certainly contrasts strangely with its present state in districts far more happily situated. It will be seen that the reading lessons extend not only to the mere act of construing sentences, but comprise a whole course of varied reading, in which the Scriptures are regarded as the highest point of attainment, and not as a first lesson-book. Health, habits of observation, memory, and reasoning, too, are cultivated by simple lessons in natural science, read to the Children, who are then examined upon their meaning under a system of competition. Dictation is occasionally used in writing ; the memory only in arithmetic ; mathematics, both pure and practical, are taught ; geography is part of the routine, and Latin, Greek, and French, if required ; the fees being from 1s. 6d. to 3s. per quarter (Ibid., p. 872).

In the Leadhills school there were found about 80 Children, of both sexes, under the tuition of one master; both boys and girls in the same classes, and from four to twelve years of age. "Although in clothing and cleanliness this little crowd was far below that of the national schools in the rural districts of England, yet here the quickness and alertness everywhere exhibited formed a remarkable contrast to the drowsy appearance there too often witnessed. And when the whole were seated in lines down each side of the room for a lesson in the rudiments of natural philosophy (the subject being the formation of ice and snow), first their silent attention and then their excitement—an excitement still amenable to discipline—was very remarkable, as scattered groups, or the whole school, arose to offer their answers to the questions proposed by the master.

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Instruction.
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"Examinations on the Catechism and in 'mental arithmetic,' a term with which the boys in the village are perfectly familiar, then succeeded; and, combined with the recent progress in reading and writing, and the ready access of the scholars to the valuable little school library published by the Irish Society, as well as to the books of the miners' library in their parents' houses, convinced me that the Children of the poor labourers of Leadhills are under as good, or perhaps under a better system of intellectual culture than even the middle-class Children of England generally. And the minister of Leadhills expressed great satisfaction with the moral aid promised by this school, the interest of which he has not spared efforts to advance.

"The testimony is universal to the anxiety of the parents to have their children instructed (Nos. 43, 44, 48); and the evidence of the boy Aitchison (No. 44) affords an evidence of intellectual activity which is here usual, but which it would be nearly impossible to find in the same class in England. The progress of the Children generally is indicated by the table, showing the desire of instruction among the Children employed in the washing department, together with their age and number.

"Of the whole 35, only three attend a Sunday-school, while Sunday-schools are almost the only source of instruction in the ignorant manufacturing districts of the North of England. The whole attend day-school during winter, and sometimes evening-school at other times; the whole regularly attend public worship; the whole can read (and generally do read expressly for their own

es of Tin, amusement and instruction); and all, except four of the youngest, can write (and well, too, as their signatures testify); an accomplishment which is the best test of their school progress, and one of which so general an acquisition is not likely to be shown by any return from the most populous and wealthy of the manufacturing or mining districts of England, where the earnings of a family will generally be double what can be obtained at Leadhills.

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"About a mile and a half westward of Leadhills is the mining village of Wanlock Head, in a vale at the source of the Wanlock stream, containing about 700 inhabitants. The miners there also have their own minister and school; and a library of upwards of 1300 volumes, founded in 1756, and supported by subscriptions of 2s. annually and 5s. on admission, yielding annually about 10l., besides a juvenile library. There is likewise a Sunday-school conducted by three young men educated in the place, and one conducted by the minister, the Rev. Thomas Hastings, for the more advanced youth, held in the chapel for three months in spring" (Ibid., Report, Mines: App. Pt. II., pp. 864, 865, ss. 21-27).

Actual Moral State.

Actual Moral
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Of the actual intellectual, moral, and religious state of the Cornish miners, Dr. Barham says—"Many circumstances have conspired to give a character of independence—something American—to this population. The mine-adventurers, the real employers, are not brought into contact in any way, as masters, with the working miners; so that the agents, men taken for the most part from their own ranks, are the only superiors with whom they have to do. The system again by which the contracts are let gives the takers entire freedom to make what arrangements they choose among themselves; and each man feels, as a partner in his little firm, that he meets his employers on nearly equal terms. The tributer likewise entertains a hope—often realized, if he is a good miner—that some fortunate contracts will put him on a parity as to station with the wealthier individuals near him, who have for the most part, at no remote period, occupied some of the lower steps of the ladder on which he himself stands.

"The miners of the West of England are a religious people. Having been in some of the principal mining districts reclaimed from a state of semi-barbarism and deep ignorance in comparatively recent times, they exhibit a tendency to enthusiasm, re-

curring in paroxysms, such as is usually witnessed in the period which intervenes between the first communication of religious truth and the prevalence among the body of the people of a sober and settled faith. Their Celtic origin may also in part account for this disposition.

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“ But evidence of the most conclusive kind of the real influence of the great doctrines of revelation on the heart of the miner is constantly exhibited in an habitually excellent and religious life, in equanimity under suffering and privation, and in calmness and resignation where death is known to be inevitable. Nothing can indeed be more admirable than the cheerful confidence with which, in the trust of a future life, the miner contemplates that termination, often an early one, of his labours. To the ministration of the Church of England, exercised by an able and excellent body of clergy, and to the persevering zeal of the Wesleyan Methodists, whose system has been found particularly congenial to the miner's character of mind, is to be attributed the diffusion, instrumentally, of this vital Christianity.

“ This description applies of course to only one class of miners—a class, however, so numerous, that its qualities become prominent features of the whole body, when it is compared with other communities. Of a great number a very different account must be given. The faults of character most frequent among the miners are such as are usually found to prevail among half-civilized people. The rudeness which has been already noticed is the manifestation of a temper which exhibits itself at times in savage outrage, and now and then in ferocious crimes. The offences against property, with the exception of small thefts in the mines, bear the same stamp, being for the most part highway robberies, which are rare,—or larcenies, such as the stealing of poultry and fruit—and poaching, in which there is as much of lawless frolic as of dishonesty. It is particularly among the young men and lads that the contempt of authority manifested in these and similar acts is prevalent; and it is among these that Sabbath-breaking—the cause and effect of bad propensities—is, in some districts especially, habitual. Drunkenness is universally stated to be less common than heretofore; but it is still a very frequent practice to hold carousals after the pay day, and fights and riots very often arise on such occasions” (Ibid. pp. 760 et seq., ss. 96 et seq.).

The result of this care of the education of the Children is a

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i Zinc.* population distinguished above all others which have been brought under notice in the course of this inquiry, for the superiority of their intellectual, moral, and religious character. "The intellectual condition of the people in the Alston Moor neighbourhood," reports Dr. Mitchell, "is decidedly superior to that of any district of England of which I have any knowledge. The witnesses uniformly manifested a clearness of comprehension of the inquiries made of them, and gave distinct replies, and added of themselves other information bearing on the subject. Almost all of them could sign their evidence, and most of them wrote exceedingly well. Their intellectual capacity and acquirements surpass any I have ever met with in England.

"Their moral condition," he adds, "is greatly in advance of that of any working-class in any place in England with which I am acquainted. They are without any regular police. Offences against property are very rare; offences against the law in any shape are very rare. 'We have one constable,' says the relieving officer, 'who continues permanently in office, who is paid for what services he may render, and two constables are chosen every year. Their office for some years has been a sinecure. Our nearest magistrate is about fourteen miles distant from us, and we very seldom trouble him; and we have to go to Penrith, twenty miles distant, when we have parish business requiring the sanction of two magistrates. There have been no riots for very many years, and very few breaches of the law of any sort; robbery and housebreaking are never heard of.' The people manifest their attachment to religion by a punctual and steady attendance at public worship" (Mitchell, Report, Mines: App. Pt. II., p. 752, ss. 280 et seq.; p. 754, s. 297; Evidence, p. 767, l. 41).

dhills. Similar is the account given by Mr. Fletcher of the moral condition of the population at the lead mines of Lanark and Dumfries, which, even at present, "lowered as it may be, is decidedly superior to that of the manufacturing and mining labourers generally; and this diminutive city of the desert" (Leadhills) is still, as it "has long been, a chief source of such education as could be procured by the wild districts around, through the agency of boys hired from it to teach in the farmers' families" (Fletcher, Report, Mines: App. Pt. II., s. 20, p. 864).

X.—MORAL CONDITION OF THE CHILDREN AND YOUNG PERSONS
EMPLOYED IN TRADES AND MANUFACTURES.

The state of instruction and of morals among the Children and Young Persons employed in the various trades and manufactures included in the present inquiry differs somewhat in different occupations, in the same occupation in different districts, and very often in the same district in different establishments.

*Trades and
Manufactures.
Metal Wares.*

METAL WARES.

Instruction.

According to tables of which Mr. Grainger states that he has ascertained the general accuracy, the proportionate numbers among the working-classes in the Birmingham district at present receiving education are as follows:—Out of a population of 180,000 persons,

*Instruction.
Birmingham*

- 10,902 or 6·05 per cent. attend day or evening schools only ;
- 4,141 or 2·30 per cent. attend both day or evening and Sunday-schools ;
- 12,616 or 7·01 per cent. attend a Sunday-school only ; making a total of

27,659 or 15·36 per cent. of the population attending schools of some kind or other.

Of this number—

- 5,835 are under 5 or above 15 years of age ; leaving
- 21,824 Children between the ages of 5 and 15 attending school in the borough of Birmingham at the time the schools were visited.

According to the population abstracts of 1821 and 1831, one-fourth of the total population consists of Children between these ages. Hence it would appear, that of the 45,000 between the ages of 5 and 15 in the borough of Birmingham—

- 21,824 or 48·5 per cent. were receiving instruction in day and Sunday-schools ; and
- 23,176 or 51·5 per cent. were not found receiving instruction in either day or Sunday schools within the borough of Birmingham.

(Grainger, Evidence : App. Pt. I., p. f 185, l. 13).

In the Wolverhampton district, including the neighbouring towns of Willenhall, Bilston, Wednesfield, Sedgley, Darlaston,

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and also in the towns of Dudley, Walsall, Wednesbury, and Stourbridge, though there are many day-schools, yet the chief means relied on for the education of the working-classes are Sunday-schools. In the collegiate church district in the town of Wolverhampton, containing a population of from 16,000 to 20,000 persons, there is no National or British school. There is not a single school, reading-room, or lending library attached to any of the manufactories, foundries, or other works, with one exception near Wednesbury; there are no evening-schools, and there is only one industrial school in these districts, namely, at Wednesbury. It is stated in evidence that the great majority of the Children receive no education at all; that not one half of them go even to the Sunday-schools, and that those who do go to these schools seldom attend them with regularity. Throughout the whole of these districts, the proportion that can read is represented as being unusually small; some who stated that they could read, when examined, were found unable to read a word; and out of 41 witnesses under eighteen years of age examined at Darlaston, only four could write their names (Horne, Report: App. Pt. II., p. Q 16, ss. 182 *et seq.*).

Sheffield.

"The number of Children on the books at the different schools in Sheffield, comprising every description of school," says Mr. Symons, "was made the subject of minute and accurate inquiry in 1838, by the Rev. Thomas Sutton, the vicar; and I have reason to believe that no material difference has taken place in the amount of scholars taught at the 'common' and 'middling' private day-schools since Mr. Sutton's census was made." From this census it appears that the maximum number of Children on the books of the different day-schools, including the infant-schools, is 800; but on a personal examination of these schools by the Sub-Commissioner, he states that a large proportion, no less than 26·47 per cent. out of the total number on the books, must be deducted as being continually absent. "Assuming," therefore, he continues, "that the schools thus estimated are a criterion of the rest (and they are certainly superior), the number who attend the schools out of the 8000 on the books is only 5869. Of the number present at the schools visited, when probably the least instructed were absent, it appears that 45·83 per cent. were unable to read fairly, and that 63·43 per cent. could not write fairly. Taking this as an index to the education of the total number on the books, it results

that, of the whole 8000, 4333 only can read fairly, and 2925 only can write fairly, or, in other terms, have attained an elemental education."

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Instruction

Sheffield.

The population of Sheffield *parish* is computed to be 123,000. Of this number it is assumed that at least one-fifth will consist of Children between the ages of three and thirteen. There will be therefore 24,600. Of these more than two-thirds will be of the working-classes : at least 16,500, then, of these classes are of an age at which they ought to be receiving education at day-schools ; yet little more than one-third of this number, viz. one only out of 2·8, attend day-schools. It is impossible to ascertain what proportion of those who do not attend day-schools can read or write ; but as it is certain that they are less instructed by at least one-half, I have every reason to believe that, out of the total 16,500 working-class Children, not above 6500 can read fairly. Among the older youths there is still less education, for they have had more time to forget the little they were formerly taught. This estimate is so thoroughly corroborated by the most trustworthy evidence I have received, that I entertain the belief that two-thirds of the working-class Children and Young Persons are growing up in a state of ignorance, and are unable to read. On the books of the Sunday-schools there were during the last year 2258, of which the average attendance was only 1708. From this it appears that 24·40 per cent., or nearly a quarter, are absent of the whole number on the books of the Sunday-schools" (Report : App. Pt. I., pp. E 18 *et seq.*, ss. 136, 138, 144-148, 150, 151).

In the returns from the Warrington district it is stated that nearly three-fourths of the Children can read ; but the Sub-Commissioner reports that of this number nine-tenths can only give the sound of a few monosyllables ; that they have just acquired so much knowledge in the Sunday-schools, and that they will probably attain to little more during their lives" (Austin, Report : App. Pt. II., p. M 19, ss. 125 *et seq.*)

Early Removal from School.

The cause universally assigned for the comparatively little advantage taken even of the means of education which are within their reach is the early age at which Children are removed from school to be placed at work. The majority of the Children in the Birmingham district commence work before they are nine

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Early removal from School.
 years of age ; and on an examination of five day-schools it was found that the average age of the upper, or senior class, was rather under ten. The period during which the Children remain in these schools is in general so brief as to be quite insufficient for the purposes of education. " All the masters and mistresses who were questioned complained that the children were constantly being withdrawn to go to work at a very early age. Thus one mistress states that, if trade were to become brisk, ' in a fortnight half the school would leave.' And another, that ' the school is constantly changing, and few receive much benefit' " (Nottingham District, No. 321 ; Birmingham District, No. 516). (Grainger, Report: App. Pt. I., pp. F 36 et seq., ss. 350 et seq.).

Wolverhampton.
 The clergymen, magistrates, and best-instructed teachers in the Wolverhampton district represent the day-schools as almost entirely useless, on account of the early removal of the children from school, and the total neglect of all means of intellectual improvement from the day they commence work. The general statements of these witnesses are to the following effect :—" Children are removed from schools to go to continuous employment, at the ages of from seven to ten" (Horne, Report: App. Pt. II., p. Q 16, s. 180). " The great majority, even when they attend a day-school, are taken away too young, sacrificed to the necessities in some cases, and the greediness in others, of the parents" (Ibid., Evidence, p. 7 18, l. 50). " Considers the instructions which the Children who come to his school receive are lost, because they are taken away just as their intellects are beginning to develop ; they are always taken away at the ages of eight and nine—sometimes as early as seven : the instructor has no chance" (Ibid. p. 7 1, l. 65). " The present system of education is not calculated to effect any material alteration or improvement in the moral or intellectual economy of the population. The Children are taken from school and employed in the different trades of the town before their minds are sufficiently developed to receive and appreciate those essential principles of moral worth and moral feeling which are calculated to constitute them useful or creditable members of society" (Ibid., Report, p. Q 16, s. 186).

Sheffield.
 In Sheffield some are removed from school as early as seven, and few remain above twelve, excepting at the Sunday-schools (Symons, Report: App. Pt. I., p. E 21, s. 153).

Inefficiency of Teachers.

It is uniformly stated by all classes of witnesses, in all the districts, that the qualifications of those to whom the education of the poor is intrusted are lamentably defective. In the Birmingham district, as a specimen of the fitness for their office of the keepers of the schools to which the younger Children are sent, it is stated that "a mistress in one of this class of schools, on being asked whether she gave moral instruction to her scholars, replied, 'No, I can't afford it for 3*d.* a-week.' Another, in reply to the same question, said, 'How is it likely, when they can hardly say their A, B, C?' Several did not know the meaning of the question; and of those who did, very few appeared to think it was a part of their duty to instruct the children in morals. Several have candidly owned that they lay under this impression. One, in particular, insisted with much warmth, that to teach morals was the duty of the parents, not hers. Another observed that she did not presume to teach morals, 'but she strove to imbibe good principles into them'" (Grainger, Evidence: App. Pt. I., p. f 185 et seq., No. 503).

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Inefficiency
Teachers.
Birmingham

Even the masters and mistresses of the common day-schools in this district, where the scholars pay, and which are attended by a limited number of the higher class of mechanics, have seldom received any training for their office—are, generally speaking, ignorant of any improved modes of education, while the instruction they afford is commonly of the most meagre character. As to the teachers of the National and British charity day-schools, they are generally uneducated and untrained; they are acquainted with no other than the monitorial system; the teaching in almost all instances is of a mechanical kind; and "several of these schools," says Mr. Grainger, "which I visited, were in a state approaching to riotous, and so little control had the masters that it was only amidst incessant interruptions and confusion the information sought could be obtained." The Sunday-school teachers are of course still less qualified for their office. "They have not generally paid any attention to the subject of education as a thing requiring in itself to be studied by all who aspire to the art of communicating knowledge to others; they are selected from the congregation rather on the grounds of moral and religious conduct than of any peculiar fitness for the office of teacher, and, in general, being

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“ Hard worked so many hours in the week,” says Mr. Horne, “ it would require the utmost skill in the adaptation of the best methods of instruction in order to attract and fix the attention of these poor boys and girls, so as to make them assist the teacher in the development of their stagnant intellects and moral feelings, and enable them to comprehend something of the principles of religion. But the great majority of the superintendents, and all the junior teachers, are unacquainted with any methods of instruction ; have had no training whatever as teachers, and are, in fact, themselves uneducated. They are commonly locksmiths, key-makers, miners, and other manufacturers and tradesmen of the place—either small masters or journeymen—and sometimes the butty of a coal-mine. Some of these teachers are themselves scarcely able to read, and quite unable to write their own names, instances of which I have frequently known ” (Horne, Report : App. Pt. I., p. Q 18, ss. 208 et seq.).

heffield.
“ The great defect in the Sheffield schools,” says Mr. Symons, “ appears to be the difficulty of maintaining efficient teachers. Nevertheless, there are some, especially in the larger schools, who are decidedly superior : the difficulty is chiefly felt in the smaller ones. I may state, as an evidence of the sort of persons who occasionally start schools, that a convicted felon, after his release from prison, found it his only resource, and obtained scholars ” (Symons, Report : App. Pt. I., p. E 22, ss. 161, 164).

Ignorance.

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The statements made by the Sub-Commissioners as to the ultimate results upon the minds of the Children of the discipline (if such a term be at all applicable), intellectual, moral, and religious, through which they pass, are the same in character in all the districts. “ With respect to the Children and Young Persons who came under my observation,” says Mr. Grainger, “ I should fail in my duty if I did not state that in the aggregate they are entirely destitute of anything which can be called, even allowing the utmost latitude to the expression, a useful education. It is especially to be deplored that, notwithstanding the instruction in

the existing schools is, with few exceptions, exclusively limited to religious knowledge, a most awful ignorance was generally evinced upon this, the most important of all subjects.

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Ignorance.

Birmingham

"In order to obtain accurate results, every witness under eighteen was expressly questioned. Many could neither read nor write; the majority were able to read, and a limited number to write. But of those who could read, only a very small proportion did so otherwise than in a most mechanical and imperfect manner, plainly evincing, by this and by the answers they gave, that they felt no interest in what they read, and in by far the greatest number of instances that they did not comprehend either the meaning of many or the words or the sense of the entire passage."

"In attending many schools, both Sunday and day schools, and on the classes being assembled, nothing could be more painful than to hear the Children read in rotation passages usually taken from the Scriptures. In the vast majority of instances this exercise consisted of nothing but the monotonous and usually discordant utterance of articulate sounds, in which it was palpable the mental faculties had no share further than was necessary for the use of the eyes and tongue."

"Many who had been for a considerable period at these schools had no practical knowledge of religion; they neither knew why they were called Christians, nor what was their duty towards God or towards their neighbour."

"In the Sunday-schools of the Established Church, and in those of some dissenting congregations, reading in the Scriptures or religious books is the only instruction given; consequently the Children who have attended no other schools than these (and they constitute a large class), have no knowledge of writing or accounts. Of the whole number examined by me, very few indeed could write in a useful manner, and the returns sent in by employers furnish the same result. An instance of the little practical benefit derived from the existing system is given by a manufacturer living at Lambeth, who required a boy to deliver goods and a girl to attend in the shop, the qualification being the capability of reading writing, not writing itself: although four or five Children applied in a day, he had to wait six weeks before he succeeded."

"As regards any general information even of the most limited

Trades and Manufactures. kind, such as the situation of Scotland, the names of the four quarters of the globe, &c., I do not think that more than a dozen of those whom I questioned, including, it must be remembered, a large number of Young Persons between thirteen and eighteen years of age, had any knowledge at all upon the subject. Of the history of their own country little or nothing was known" (Grainger, Report: App. Pt. I., pp. F 35 et seq., ss. 339—344. Evidence, Birmingham District, Nos. 337, 455, 697 et seq.).

Ignorance. In reporting on the results of his examination of the Children and Young Persons themselves, with a view to ascertain their mental development and the range of their knowledge, Mr. Horne states that none of the answers recorded are to be attributed to confusion or timidity; that if the witnesses were timid or confused upon any question, he waited till the embarrassment was over, or else gave up the point, and that some of the extreme and almost incredible statements are the result of repetitions of the same questions either under a different form, or after an interval during which other questions had been asked.

Wolverhampton. The following examples, among great numbers of others, may serve to show the mental state of these Young People:—A girl, eleven years of age, who states that she has been to a day-school and a Sunday-school, "has never heard of another world, nor of heaven nor another life." One Young Person, of seventeen years of age, did not know how many two and two made, nor how many farthings there were in two-pence, even when the money was placed in his hand. "Some boys had never heard of such a place as London, nor of Willenhall, which is only three miles distant, and in constant communication with Wolverhampton. Some have never heard the name of Her Majesty, nor such names as Wellington, Nelson, Buonaparte, &c. But it is to be especially remarked, that, among all those who had never even heard such names as St. Paul, Moses, or Solomon, there was a general knowledge of the characters and course of life of Dick Turpin the highwayman, and more particularly of Jack Sheppard the robber and prison-breaker" (Horne, Report: App. Pt. II., p. Q 18, ss. 214, 216, 217).

One boy, of sixteen or seventeen, could not tell how many twice two made, nor how much money four farthings made; another boy of seventeen told me that ten farthings made ten half-pence,

&c.; and another boy, aged sixteen, stopped me short in some very simple questions as to how many ounces were in a pound, &c., by informing me at once that "He was no judge o' nothin'" (Ibid. Evidence, Nos. 210, 226, 233).

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Wolverhampton.

Of the state of confusion, when not in absolute darkness as to religious subjects, in which the minds of these Children are, even though they have been in regular attendance at Sunday-schools from five to seven years, the following are examples :—"Has attended a Sunday-school regularly for five years; does not know who Jesus Christ was, but has heard the name of it; never heard of the twelve apostles; never heard of Samson, nor of Jonah, nor of Moses, nor Aaron," &c. (Ibid. Evidence, p. q 39, l. 33). "Has attended Sunday-school regularly nearly six years; knows who Jesus Christ was; he died on the cross to shed his blood to save our Saviour; never heard of St. Peter or St. Paul" (Ibid. p. q 36, l. 46). "Has attended the Sunday-schools of different kinds about seven years; can read only in the thin books, easy words of one syllable; has heard of the apostles; does not know if St. Peter was one, nor if St. John was one, unless it was St. John Wesley; does not know anything about Job; never heard of Samson," &c. (Ibid. p. q 34, l. 58). "When the name of 'Jesus Christ' has been heard, extraordinary desecrations or confusions, the result of ignorance, have been developed in the reply to any further questions. One boy, on being asked if he knew who Jesus Christ was, replied, 'Yes—Adam;' another boy replied, 'He was an apostle;' another that 'He was the Saviour's Lord's son;' and another, a young person of sixteen years of age, thought that 'Jesus Christ was a king of London a long time ago.'"—(See also Evidence, pp. q 31 et seq., nos. 136, 145, 160, 161, 181, 184.)

"Many of the Children," continues Mr. Horne, "told me they always said their prayers at night, and the prayer they said was, 'Our Father.' I naturally thought they meant that they repeated the Lord's Prayer, but I soon found that few of them knew it. They only repeated the first two words: they knew no more than 'Our Father!' These poor Children, after their laborious day's work, lying down to sleep with this simple appeal, seemed to me inexpressibly affecting. Having nothing but harsh task-masters in this world, or 'working under their father,' it was

Trades and Manufactures. probably the only true sense in which they could use the words" (Ibid. Report, p. Q 18, s. 215).

Total Wages. "It is a common practice," says Mr. Symons, "in all but the best schools in Sheffield, even in the day-schools, to teach by rote. The consequence is, that Children will repeat, very fluently, the Church or Wesleyan catechisms, or any other passages committed to memory, and yet be wholly unable to give any explanation of the meaning of what they utter. Among the schools personally examined, some were found really efficient, as the Brunswick day-schools; but in others, as the Red Hill day-school, the Children, it is stated, were extremely noisy and apparently ill-disciplined. Sixty-three were present, of whom twenty-two only could read fairly, and twenty could write. Seven Children were drafted from two or three of the highest classes for examination. They averaged nine years and nine months in age, and the average time at which they had been at school was three years and four months. They had also been more or less at the Sunday-school. They were examined in an easy chapter in the Gospel. Three read very imperfectly, two very well, and two could hardly read at all.

"Of the Red Hill Sunday-school, one of the most popular in Sheffield, eight or nine of the boys were drafted into a side room apart for me to examine. They were most of them just able to read a verse each in the 17th chapter of St. Luke, but this was all. It was evidently hopeless to get any intelligible statement from them of what they had been reading about, its meaning, or its purport. I then asked the teacher to be so good as to send me some of the elder and more advanced Children, supposing that a selection had accidentally been made of the most ignorant in the school. About eight or nine of the oldest then made their appearance, but with precisely the same result: they knew nothing. After failing in obtaining any answer to a variety of the simplest questions, I asked what sort of people apostles were. After putting the question to nearly every one of the sixteen in succession, without a correct answer, a little sharp-looking fellow cried out with great glee, 'Please, Sir, they were the lepers.' I asked the teachers to question them, but they declined.

"The Children generally come to day-schools," continues Mr. Symons, "and often to Sunday ones, either knowing nothing; or

with the doubtful erudition of dame-schools for a foundation. It is not surprising that, when they have left the day-schools, after a year's instruction, and entered a workshop, two or three years should suffice to obliterate almost the entire instruction they have received. I firmly believe that not one-third of those who have been apprenticed three years can read and write with even moderate proficiency. And I believe that, if we attach its proper signification to the term 'educated' (without soaring above what is ordinary working-class knowledge), two-thirds at the very least of the working-class Children of Sheffield will grow up uneducated, notwithstanding the amount some of them may possess when they leave school" (Symons, Report: App. Pt. I., pp. E 22 et seq., ss. 159, 171 et seq.).

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EARTHENWARE.

Instruction.

The tables furnished by Mr. Scriven show that means are extensively provided for the instruction of the Children and Young Persons employed in the potteries; but the evidence given by all classes of witnesses proves that these means are not profited by. The Sub-Commissioner states that three-fourths of the Children personally examined by him, even in those places in which the means of instruction are the most abundant, could neither read nor write; that the ignorance of the Young People throughout the district is absolute; that this is proved by the testimony of the ministers of religion of all denominations, and by that of the employers and their agents of all classes; and that the main causes of this neglect of education are here, as everywhere else, the early age at which Children are taken from school to work, their inability to attend evening-schools after the labour of the day, and the utter inefficiency of Sunday-schools to compensate for the loss of day-schooling, numerous instances occurring of Children who had been for years in regular attendance at these schools, who on examination were found incapable of distinguishing one letter from another (Scriven, Report: App. Pt. I. pp. C 8 et seq., ss. 28 et seq.; Evidence, pp. c 31 et seq., [Nos. 116 et seq.).

*Earthenware
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Staffordshire*

Trades and
Manufactures.

Calico-Printing.

Instruction.

Lancashire.

CALICO-PRINTING.

Instruction.

The evidence collected by Mr. Kennedy in the Lancashire district tends to show that the Children employed in this occupation are excluded from the opportunities of education; that this necessarily contributes to the growth of an ignorant and vicious population; that the facility of obtaining early employment for Children in print-fields empties the day-schools; that parents without hesitation sacrifice the future welfare of their Children through life for the immediate advantage or gratification obtained by the additional pittance derived from the Child's earnings, and that they imagine, or pretend, that they do not neglect their Children's education if they send them to Sunday-schools. As an example of this he gives the following evidence:—

"When I first came into this district," says Mr. Emery, master of the school at Disley, "which is now many years since, my scholars stayed much longer with me, and I had then a chance of making something of them: I had boys in my school from seventeen to eighteen years of age; but now that a Child of seven years old can earn from 2s. 6d. to 3s. per week, the temptation to send them to work is too great for the parents, and they are taken away from my school almost before I have had time to teach them anything. The copy-books will show the difference in the writing then, as compared with the writing now." "This was very apparent," continues Mr. Kennedy: "in many of the older copy-books the writing was beautiful; and I remarked that the examples in arithmetic were of a more useful and improving kind: such, for example, as problems on the measurement of land. There was a calculation of the distance of a tower from a given point, where the necessary data were given, &c. Whereas the writing of the present scholars was that of beginners only, and the examples in arithmetic were of a much more elementary kind.

"On looking at the number of the scholars, it appeared that they had diminished one-half since the year 1832, notwithstanding the remarkable increase of the population in this district within the last ten years. Mr. Emery attributes the falling off of the school to the facility of getting employment at high wages for very Young Children; and to the indifference of the parents about the

education of their Children, who now entirely trust for their instruction to the Sunday-schools. It is not uncommon to hear the parent say to the Child, 'Thou must work, and go to the Sunday-school, same as I did.' The wages are so high for the Children's labour that no parent would hesitate a moment whether he should send his Child to school or to work: if he sends his Child to school he must *pay* 2*d.* a-week, if he sends him to the print-works he *receives* for his labour from 2*s.* 6*d.* to 3*s.* per week. The block-printers can make from 20*s.* to 30*s.* per week, and of course they might afford to send their Children to school" (Kennedy, Report: App. Pt. I. p. B 33, ss. 243-247).

In some districts in Scotland the means of instruction are abundant; in one parish, for example, there are nine day-schools for the working classes, besides evening and Sunday schools; and the teachers in general are well trained, sometimes at normal schools, and often having received a university education. "I have been led to form," says Mr. Tancred, "a favourable opinion of the general qualifications of the teachers in schools for the poorer classes in Scotland. The teachers in the parochial schools, one of which at least must be supported by the heritors, or landed proprietors, in each parish, thus forming part of the Church establishment, though not now legally obliged, as was formerly the case, to have had a university education, have not seldom enjoyed that advantage, and consequently are usually possessed of much more extended information than the corresponding class in England; they have not uncommonly studied for the ministry. To these qualifications they now appear very generally to unite the no less essential one of a knowledge of the method of communicating instruction to Children. The practice and example of the Glasgow normal seminary appears to have had the beneficial effect of diffusing very widely more just views of the manner of conveying instruction to Children, as well as of the objects to be aimed at in a good school, than formerly prevailed. The mere mechanical acquisitions of reading and writing, which were all that was expected of the school when domestic training and private reading were more general than they are now, I fear, at least in the manufacturing and mining communities, are now commonly united with a profitable exercise of the understanding upon the subject-matter of the books read, and sometimes with a practical training of the Children in and out of school in the observance, in their own con-

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duct, of those holy precepts which the Scriptures contain. This more attractive and sensible manner of teaching enables a constant recourse to corporal punishment to be dispensed with. The teachers are almost universally men, and the scholars commonly of both sexes, as in the schools in Switzerland and in some parts of Germany. It seems an inconvenience resulting from this practice, that the industrial education of the girls cannot form a part of the school instruction, and also that in small country places, where a well-qualified mistress would be quite sufficient to instruct all the Children, the greater expense of a male teacher is unnecessarily imposed. The number of the parochial schools, however, like that of churches, is lamentably disproportioned to that of the inhabitants in many populous districts, and the want is but ill supplied by voluntary exertions or private adventures" (Tancred, Report: App. Pt. II., p. I 58, s. 222).

But of the means of instruction that are provided, the Children of the manufacturing population in general, and those employed in the print-fields in particular, cannot avail themselves, on account of the early age at which Children are removed from school, and the long hours during which their daily labour is continued. Throughout the whole of Scotland the Sub-Commissioner met with but one print-field to which a school was attached, and at which the hours of the Child's employment were so regulated as to allow of its receiving daily instruction. This exception was the print-field of Messrs. Daglish and Falconer, at Campsie. "Those gentlemen," says Mr. Tancred, "anxious for the improvement of the Children in their works, at first resolved not to admit any whom they considered not properly educated. They found, however, a difficulty in obtaining hands on that condition, and next determined to adopt relays of Children, and to compel all who had not attained sufficient proficiency before coming to the works to attend schools in the village for a portion of the day. This plan, however, proved in some points objectionable; they have now a school in the works, to which the Children are sent, in small relays, for an hour at a time during the day. More Children being in consequence of this employed than they would otherwise require, they deduct from the wages of all who go to school sufficient to make the sum total paid to all not exceed the amount which a smaller number would receive were no extra hands employed; in other words, they pay the school-goers short-time

wages. This tends to prevent an abuse to which a wholly gratuitous school would tend, viz., the offering an inducement to parents to be even more negligent than they now are as to the schooling of their Children before they begin to work" (Ibid. p. I 2, s. 81).

The evidence shows that the majority of the Children employed in calico-printing in the West of Scotland can read, but the same evidence shows that comparatively few can write; and of course here, as in other districts, those who have not acquired more than these elementary arts are in reality still ignorant. "The facilities afforded for the early employment of Children as tcecrers," reports Mr. Tancred, "offer an irresistible inducement to the majority of parents to reduce the period of schooling for the sake of the wages which the Child would earn in the print-field. Hence the universal complaint of schoolmasters, that they are deprived of the Children at an age too early to have been able to make any satisfactory progress, and that the Children are forced to begin reading at an age when they ought rather to be subject to the moral discipline of the infant-school, to be learning their duties to God and their neighbour rather than attending exclusively to the mechanical art of reading. Yet this is the great ambition of most parents; and the school where the art of mere reading without any understanding of the subject-matter is soonest taught will be the most popular. In spite of these discouraging circumstances, I have been often agreeably surprised at the excellence of the method, and the zeal in turning to the best account the short period during which the Children are committed to them, displayed by many schoolmasters in my district. Their ability to teach made me the more regret that no sufficient time was secured to the Children for profiting by the schools which are all ready for them. It is not like the case of some manufacturing towns in England; where, however, we may hope that gradually efficient schools and teachers will rise up to take advantage of the Factory Act: at present its beneficial enactments regarding education remain a dead letter. Here the time only is wanted; the schools are already in operation."

"The usual salve to the conscience both of masters of works and of parents is the evening-school. Mothers, schoolmasters, physicians, clergymen, and the workmen themselves, all concur in testifying to the cruelty, as well as the uselessness, of forcing a Child of tender years to attend a school for two hours at night

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after the physical exhaustion of twelve hours' activity during the day. The general testimony of workmen is that they learned little or nothing at the night-school until their advanced age made them sensible of their deficiencies, and their increased strength enabled them to apply to intellectual labour after a day's work in the print-field."

"The Sunday, or, as they are called, Sabbath-schools in Scotland, are very different from those in England; but however excellent for other purposes, no better adapted than our own to stand in lieu of week-day instruction. Indeed in Scotland they very properly exclude secular instruction altogether, even more universally than we do" (*Ibid.* p. J 20, ss. 79, 80, 82).

These statements are abundantly borne out by the answers to the Educational queries returned by clergymen and other witnesses, which are uniformly and universally to the following effect:—

"Their removal from school at so early an age operates seriously to their injury in after-life, as they have few facilities afterwards for mental improvement; and finding that no sympathy exists between them and their more intelligent fellow-workmen, they too often mix with the most worthless of the community, and become pests to society."

"Beyond nine or ten years of age they seldom get any opportunity for education, till when their daily wages enable them to take advantage of an evening class. This acts most decidedly to their injury in after-life. They are hurried early to school, and pushed forward. Eventually they are huddled together in manufactories and places of labour, and very speedily, in many cases, go early to the grave."

"In this as in most manufacturing districts they are removed at a very early age, from eight to ten years old. Few remain at school beyond that period. This most undoubtedly operates to their injury in after-life, for many of them are not above two or three years at school, and not being well grounded in their education they cannot read for themselves with profit or pleasure, and many forget what they had attained."

"The instruction given in Sunday-schools is entirely of a religious kind. We are most unwilling to receive any into such schools who cannot read. To communicate secular knowledge in them is altogether foreign to the objects of Scottish Sabbath-schools" (*Ibid.* p. I 59 et seq.).

Deficiency in Female Education.

Such is the state of education in the leading trades and manufactures included in the present inquiry, and its condition in the minor branches of industry differs in no material circumstances. It is therefore unnecessary to pursue this subject further than to direct attention to one essential defect in the education of the female portion of the Children employed in labour, common to all occupations in all districts; and the evil consequences of which, social and moral, can hardly be over-estimated. The early removal of female Children from girls' day-schools, and from home, to be placed at labour, prevents them from learning needle-work, and from acquiring those habits of cleanliness, neatness, and order, without which they cannot, when they grow up to womanhood and have the charge of families of their own, economise their husband's earnings or give to his home any degree of comfort. This general want of the qualifications of a housewife in the women of this class is stated by clergymen, teachers, medical men, employers, witnesses, and all others, in all the districts, to be one great and universally prevailing cause of poverty and crime among the working classes.

Among innumerable other statements to the same effect, the following may serve to show the prevalent feeling on this subject:—"The employment of females during childhood prevents them from forming the domestic habits usually acquired by women in their station, and renders them less fit than those whose early years have not been spent in labour for performing the duties of wives and mothers. The slenderness of the stock of domestic knowledge possessed by the females is attested by all parties. When they come to be wives and mothers, the consequences are very injurious to the husband and Children, from the want of management in the outlay of the earnings, from the expense entailed in paying for work which ought to be done at home, and from the coarse and insufficient culinary processes, adopted through ignorance of better methods. The very slight knowledge of culinary work possessed by the young women leads to a crude and coarse preparation of the food, which is one cause of the disorders of the stomach" (Barham, Report, Mines: App. Pt. I., p. 806, s. 258).

"The women are so far from being good household managers that very few can sew; baking and cooking they can just do; is

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aware of many cases in which families in the receipt of large wages live in discomfort from want of household economy and management; the consequence upon the husbands is that they are driven to seek comfort in beer-shops and public-houses." "A vast number of these females cannot make, or mend, or repair a single tear; but in the cases in which we have been able to communicate good domestic education to the females, the good effects are far more visible than amongst the men." "Their utter deficiency of all knowledge of domestic work or economy is one of the greatest causes of the misery and destitution among the families of the operatives. A girl who has been accustomed for years to a workshop or manufactory, or a pit-bank, can scarcely ever make any of her own clothes, cook a dinner of the plainest description, or reckon up a weekly bill. She would be a treasure, indeed, that could. In consequence of this almost universal deficiency, the man who marries one of these girls has no home but the beer-shop." "Is of opinion that in all respects it is even more important that the females should be educated than the men; because they have higher and more important duties to perform in bringing up their Children, and forming their habits" (Horne, Report: App. Pt. II., p. Q 21, ss. 237 et seq.).

"It is right to place in a prominent point of view the entire ignorance among the vast majority of the female mechanics of all household management; girls who have received little or no education are sent to work whilst mere Children, and all their habits are formed in the workshop, which becomes to them a substitute for home. It is impossible to overstate the evils which result from this deplorable ignorance. All parties who have an opportunity of knowing the domestic economy of the manufacturing population, and especially the operatives themselves, depict those evils in the strongest light. The statement of a very intelligent and most respectable mechanic, Mr. Joseph Corbett, is a picture of thousands of families in the large manufacturing towns, and is worthy of the deep consideration of all who desire to promote the welfare of this important class of our population." The medical practitioners engaged in preparing the Report on the State of the Public Health in Birmingham, who, from their profession, are intimately acquainted with the interior economy of the labouring classes, forcibly point out the misery and want of comfort which are to be traced to the extreme ignorance of domestic management

on the part of the wives of the mechanics. Improvidence in the purchase of food, and especially in the mode of cooking it; absence of comfort at home, neglect of Children, alienation of all affection in families, and drunkenness on the part of the husband, are the too common results (Birmingham District, p. 180; Nottingham District, No. 266). Another great defect in the existing education of females is the almost total absence of all knowledge of making and repairing linen garments. I have spoken with no adult mechanic who did not deplore this ignorance, in consequence of which an expense must be incurred for making shirts, shifts, &c., which presses heavily on the limited resources of a working man. And but too often, from the same cause, "if the body-linen gets out of order, it must either be sent out to be mended at an expense, or be left as it is" (Birmingham District, Nos. 360, 449). "Much of the slovenly appearance of men, women, and Children, observable in our large towns, and which lowers that self-respect from which spring so many virtues, is attributable to this cause" (Grainger, Report: App. Pt. I., p. F 36, ss. 345—347).

The statement of Mr. Joseph Corbett, above referred to, which is based on his own experience, is to the following effect:— "Children during their childhood toil throughout the day, acquiring not the least domestic instruction to fit them for wives and mothers. I will name one instance; and this applies to the general condition of females doomed to, and brought up amongst, shop-work. My mother worked in a manufactory from a very early age. She was clever and industrious; and, moreover, she had the reputation of being virtuous. She was regarded as an excellent match for a working man. She was married early. She became the mother of eleven Children: I am the eldest. To the best of her ability she performed the important duties of a wife and mother. She was lamentably deficient in domestic knowledge; in that most important of all human instruction, how to make the home and the fire-side to possess a charm for her husband and children, she had never received one single lesson. She had children apace. As she recovered from her lying-in, so she went to work, the babe being brought to her at stated times to receive nourishment. As the family increased, so anything like comfort disappeared altogether. The power to make home cheerful and comfortable was never given to her. She knew not the value of cherishing in my father's mind a love of domestic

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 objects. Not one moment's happiness did I ever see under my father's roof. All this dismal state of things I can distinctly trace to the entire and perfect absence of all training and instruction to my mother. He became intemperate; and his intemperance made her necessitous. She made many efforts to abstain from shop-work; but her pecuniary necessities forced her back into the shop. The family was large, and every moment was required at home. I have known her, after the close of a hard day's work, sit up nearly all night for several nights together washing and mending of clothes. My father could have no comfort here. These domestic obligations, which in a well-regulated house (even in that of a working man, where there are prudence and good management) would be done so as not to annoy the husband, to my father were a source of annoyance; and he, from an ignorant and mistaken notion, sought comfort in an alehouse.

" My mother's ignorance of household duties; my father's consequent irritability and intemperance; the frightful poverty; the constant quarrelling; the pernicious example to my brothers and sisters; the bad effect upon the future conduct of my brothers; one and all of us being forced out to work so young that our feeble earnings would produce only 1s. a-week; cold and hunger, and the innumerable sufferings of my childhood, crowd upon my mind and overpower me. They keep alive a deep anxiety for the emancipation of the thousands of families in this great town and neighbourhood, who are in a similar state of horrible misery. My own experience tells me that the instruction of the females in the work of a house, in teaching them to produce cheerfulness and comfort at the fireside, would prevent a great amount of misery and crime. There would be fewer drunken husbands and disobedient Children. As a working man, within my own observation, female education is disgracefully neglected. I attach more importance to it than to anything else. They impart the first impressions to the young susceptible mind; they model the Child from which is formed the future man" (Evidence, p. f 131, l. 30).

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 The moral and religious state of the Children and Young Persons employed in the Trades and Manufactures of Birmingham is described by the Sub-Commissioners as very unfavourable.

The social and domestic duties and affections are but little cultivated and practised; great numbers never attend any place of religious worship, and of the state of juvenile crime some conception may be formed from the statement that, of the total number of known or suspected offenders in this town, during the last twelve months, namely 1223, at least one-half were under fifteen years of age; and in the same period there had been summarily convicted, of the age of ten years, 46, and committed for trial, at the same age, 44 (Birmingham District, No. 485). The superintendent of police states that many of this class, under sixteen years of age, will steal from their own parents.

As to illicit sexual intercourse, it seems to prevail almost universally, and from a very early period of life: to this conclusion witnesses of every rank give testimony. (See particularly Birmingham District, Nos. 485, 486, 487, 488.) "In addition," says Mr. Grainger, "to the other causes which in manufacturing towns give rise to this lamentable state of things, there is one circumstance which is probably more influential than all the others together—the early age, namely, at which Children become independent of parental control. It is one of the peculiar features of the present period, that, in proportion as the difficulty of obtaining employment for adults has by degrees become greater, the demand for the labour of Children, and in a less degree for that of women, has increased. At this time there are hundreds of men in the above towns who for months have been supported entirely by the earnings of their wives and Children. This reversal of the natural order of things is viewed by all parties as one of the most deeply-seated evils operating on the manufacturing population. At the age of fifteen or sixteen, Children, being generally capable of maintaining themselves according to the wretched way in which they live, are very commonly beyond the control of their parents, and are thus left at the very period when watchful superintendence is most required to their own guidance and discretion. Affection between Children and their parents is destroyed, and the latter are but too often insulted and despised by the former."

"One circumstance, evincing what might almost be termed a criminal indifference to the morals of the young of both sexes, requires special animadversion. It is the state of the privies. These are not only very often in a most unfit condition, but in too many cases are permitted to be used in common by the males

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and females. When, as frequently happens, these places are not in sufficient number, the women and girls are liable to be kept waiting, often in full view of the workshops, until they are vacated by the men. Such scenes I have myself witnessed, and I can safely affirm that the accounts given in the evidence are not exaggerated (Birmingham District, pp. 119, 124; Nos. 339, 360, 361, 381, 386, 497). A custom like this must sap not only all virtuous but even decent feeling in young girls exposed to such contamination. It will be in vain to exclaim against and to attempt to remedy the vice and profligacy of the manufacturing districts so long as such debasing scenes are permitted to be enacted, and so long as manufacturers are indifferent to the moral well-being of the thousands of Children whom they employ" (Ibid. Report: App. Pt. I., p. F 39, ss. 372—374, and p. F 40, ss. 385—387).

Wolver-
hampton.

Of the moral condition of the youthful population in the Wolverhampton district, Mr. Horne says, "Putting together all I elicited from various witnesses and conversations with working people, abroad and at home, and all that fell under my own observation, I am obliged to come to the conclusion that the moral virtues of the great majority of the Children are as few in number and as feeble in practice as can well be conceived of those who are born in a civilized country, surrounded by religious and educational institutions, and by individuals anxious for the improvement of the condition of the working-classes." He adds of Willenhall, "A lower condition of morals, in the fullest sense of the term, could not, I think, be found. I do not mean by this that there are many more prominent vices among them, but that moral feelings and sentiments do not exist among them. They have no morals."

In general the Children and Young Persons who came under his notice and examination are stated to have but little "sense of moral duty towards their parents, and little affection for them. I attribute this," he says, "in a great measure to the Children being sent out to work at such early ages, and with so little consideration or care for anything but their weekly earnings. The Child instinctively feels that it is used as a mere bit of machinery. Its affections towards the authors of its being are soon weaned and worked out. Brothers and sisters are separated at an early age—go to different kinds of work—and soon lose all mutual

affection or interest, if any had existed. They often appear to know very little of each other, scarcely having had time to become acquainted since the period of infancy."

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"The same circumstance of early working throws Children, in all the innocent impressibility of tender years, into the immediate society of adults, many of whom are dissolute and depraved in conduct and in language to the last degree. This directly tends to destroy all delicacy, love of truth, in fact the whole circle of moral virtues, by poisoning every principle in the bud—supposing the poor Child to have ever had one seed previously sown in its breast which had found time to take root sufficiently to put forth a bud" (Report: App. Pt. II., p. Q 14 et seq., ss. 169 et seq.).

Many of these poor Children are so oppressed by the circumstances in which they are placed, that they are even sunk below the consciousness of the misery of their condition. "The uncomplaining nature of the evidence taken from so many Children and Young Persons in painful circumstances (see, as instances, Nos. 11, 12, 23, 52, 54, 56, 70, 84, 87, 89, 93, 116, 122, &c.). I can but consider," observes Mr. Horne, "is in itself an evidence of the poverty of their spirit and moral nature. Many of these poor Children, deposing that they worked from twelve to fourteen hours a-day for 1s. 6d. or 2s. 6d. a-week, not a penny of which they had for their own use, and often without any regular hours for their meals (as in some of the foundries); who were clothed in rags; who acknowledged that they often felt sick or otherwise ill, and that they had not enough to eat; who were sometimes 'beaten badly,' but who 'only felt it for a day or two,'—have still replied that they 'liked their work,'—'were well treated,'—'were only punished when they deserved it,' &c. They evidently knew of nothing else but to wake and go to work from day to day, and to continue working until permitted to leave off. Such a question as 'Do you feel tired?' had never before been asked them, and they did not understand it, or only comprehended its purport in some vague sense. It will be requisite, therefore, to distinguish between those whose evidence shows nothing to complain of, and those whose evidence shows much wretchedness, but who uttered no complaint" (Ibid. p. Q 21, s. 139, 140).

In all the Sheffield trades employing large numbers of Children, *Sheffield.*

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it is stated that there is a much closer intermixture of the younger Children with the elder youths, and with the men, than is usual in the cotton, woollen, and flax factories, and that the conversations to which the Children are compelled to listen would debase their minds and blunt their moral feelings, even if they had been carefully and virtuously educated, but that of course this result takes place more rapidly and completely in the case of those who have had little or no religious culture, and little but bad example before their eyes, from their cradle upwards. It is also the general practice in the trades of this town for the parents to let out their Children to individual workmen at an unusually early age, so that during the period intervening between childhood and manhood these Children become independent of parental control, being, in fact, "throughout the whole of this industrial community, entirely their own masters as to habits, hours, education, and religious instruction, before they are fourteen years of age."

Thus left wholly to themselves, before they are capable of self-government, very few of these Young People attend a place of worship on Sunday. On the contrary, it is the common practice, not only for the elder Youths, but even for the younger Children, to spend this day in gambling for halfpence in the streets and outskirts of the town. "One Sunday," says Mr. Symons, "at about one o'clock, I counted 205 Children loitering or playing as I walked along one street in Sheffield which is about 500 yards in length. I counted those who were near enough in the streets which ran out of it; but I counted none who were apparently passing along, but only those who were playing or lounging about. On my return in the evening I counted 228. The streets are a common resort on Sundays, and the contamination hence arising is deplorable. Dog-fighting is also a common Sunday recreation."

The clergymen and other witnesses concur in giving the same testimony. "On Sundays," they say, "and especially on Sunday afternoons, it is impossible to pass along the highways or to walk in the more retired paths, beyond the police boundaries, without encountering numerous groups of boys, from twelve years and upwards, engrossed in what is locally termed 'pinching,' i.e., gaming for copper coin." "Insubordination to parental authority, leading to insubordination to all authority," is stated to be very general.

Habits of drinking are formed at a very early age, malt liquor being generally introduced into the workshops, of which the youngest Children are encouraged to partake. "Very many," say the police officers, "frequent beer-shops, where they play at dominoes, bagatelle, &c., for money or drink." Early intemperance is assigned by the medical men as one cause of the great mortality of Sheffield. "There are beer-houses," says the Rev. Mr. Farish, "attended by Youths exclusively, for the men will not have them in the same houses with themselves. In these beer-houses the Youth of both sexes are encouraged to meet, and scenes destructive of every vestige of virtue or morality ensue. Companies of such Youths, eight or ten in number, not unfrequently conspire in committing depredations and robberies." In describing his visit, in company with the superintendent of police, to some of these beer-houses, the Sub-Commissioner says, "We commenced our visits at about half-past nine at night. In the first place we entered there were two rows of visitors along each side of the room, amounting to 40 or 50. They were almost entirely boys and girls under seventeen years old; but there were a few girls of a more advanced age. The boys and girls were sitting together, each boy having, apparently, his companion by his side. A tall woman, with one or two attendants, was serving them with drink, and three or four men were playing on wind instruments in a corner. Several of the boys were questioned as to their ages and occupations. Some were grinders, some hafters, and a few had no calling which it was convenient to name to the police. Some were as young as fourteen, but mostly about fifteen or sixteen years old. The younger Children do not usually remain so late at these places. We visited several others afterwards. In some they were singing, in others dancing, and in all drinking. In three successively we caught them playing at cards, which the police immediately seized. On one occasion we went into a long and brilliantly lighted room, of which the ceiling was painted like a bower: benches and tables were ranged along the side of each wall. This place, situated up a dark and narrow lane, was crowded with Young People, and with men and women, several of the latter professed prostitutes. There must have been about 100 persons there. At my last visit, as we were leaving the room, a groan was raised in compliment of the police, upon which

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Mr. Raynor, accompanied by only one policeman, returned to the extreme end of the room, and, selecting an offender, took him, not without his resisting, out of the place. It was instructive to observe the aspect of every other person in the room: so far from assistance, not a syllable was uttered. Nearly every man and boy there was probably guilty of some theft or offence, of which the consciousness effectually cowed them."

"Besides the regular beer-shops, there are several gin or spirit shops similar to the London ones: these, of course, make a show outside. This is not the case, however, with the great bulk of the public-houses, which appear much more like private houses externally, at least at night; the only outside indication of their character is a painted window-blind, merely coloured in a pattern, and without any letters or announcement on it. In these a large body of the workmen habitually spend their evenings. It is stated by the vicar of Sheffield "that before the passing of the Beer Act there were in the entire parish of Sheffield 20 dram-shops, whereas at the present time there are 124, and they are still progressing" (Symons, Report: App. Pt. I., pp. E 13 et seq., ss. 101 et seq.; Evidence, pp. e 1 et seq., Nos. 1 et seq.).

But it is stated by all classes of witnesses that "the most revolting feature of juvenile depravity in this town is early contamination from the association of the sexes;" that "juvenile prostitution is exceedingly common," and that this is proved not only by "the language of the Children, even in the open streets, which is often most disgusting," but "by the numerous instances of solitary companionship of Children of opposite sex which every one must encounter who walks out in an evening." "The outskirts of the town," says one of the clergymen, "are absolutely polluted by this abomination; nor is the veil of darkness nor seclusion always sought by these degraded beings. Too often they are to be met in small parties, who appear to associate for the purpose of promiscuous intercourse, their ages being apparently about fourteen or fifteen." "The evidence," says the Sub-Commissioner, "might have been doubled which attests the early commencement of sexual and promiscuous intercourse among boys and girls" (Ibid., p. E 14, s. 113).

Some of the witnesses state that "the passengers in the street are sometimes grossly insulted and pelted with dirt by these

Young People." (Ibid. Evidence, p. e 8, l. 10). "On the eve of Saint Monday they shoulder the white cravats from the causey, or extend a leg to throw down the passer-by, to the disgust and astonishment of foreigners. Their horrid words, their ferocious gestures, their hideous laughter, their brutal, bloated, mindless faces, appal and amaze the stranger" (Ibid., p. e 13, l. 63).

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From these statements it can be no matter of surprise that crimes and outrages of an aggravated character are common at Sheffield. The police reports and the coroners' inquests but too fully attest this. "Within a year of the time of my visit," says the Sub-Commissioner, "the town was preserved from an organized scheme to fire and plunder it merely by the information of one man, and the consequent readiness of the troops. A large body of men and boys marched on it in the dead of the night, and a very large quantity of crows' feet to lame horses, pikes, and combustibles were found on them, at their houses, and left on the road. Several were pledged to fire their own houses. I name this as a further illustration of the perilous ignorance and vice prevailing among that young class between boys and full-grown men, who were known to be among the chief actors in these scenes" (Ibid., Report, p. E 16, s. 126).

Still, notwithstanding this preponderance of early demoralization and of subsequent vicious courses, pursued often to the end of life, there are many highly respectable workmen and well-conducted families in Sheffield, and there are not wanting examples of employers who treat their people with attention and kindness, for which they are amply repaid by the respect, gratitude, and exemplary conduct of their men.

The moral condition of the Children employed in the pin-manufacture at Warrington "must be considered," says the Sub-Commissioner, "as very low on the scale, being Children of the poorest parents, who, in their youth, had neither opportunities presented to them by the liberality of others, nor the means of purchasing them for themselves, for their moral or intellectual culture. They are in their infancy, when impressions are easily taken, but are often firmly fixed, placed in a situation very disadvantageous in this respect: some, no doubt, are much better off than others; their parents may earlier in life have had some moral culture, though subsequent misfortunes may have deprived them

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ton.* of the power of giving their Children the same advantage, and compelled them to have recourse to the produce of their early labour for their maintenance and support. When Children are brought together in large numbers it will be generally found that the bad ones are much more likely to corrupt the good than the latter are to change the bad ones 'to their likeness;' unless, indeed, the watchful eye and the good example, as well as precept, of the superintendent shall prevent this evil" (Austin, Report; App. Pt. II., p. M 16, ss. 108 et seq.).

But in the pin-heading shops it is stated that this is not always the case, although some of the overlookers are moral and religious men: others "are out drinking on Monday and Tuesday, and the Children under them do not settle to work." Several of the overlookers too "are women who have been themselves sheeters of pins, and are of no superior class to those they superintend." Almost all the witnesses not interested in the manufacture of pins state that the workshops are "schools of vice and immorality;" and although, in the opinion of the Sub-Commissioner, the direct evidence collected by him, as far as regards the Children, does not prove anything further than rudeness, dirtiness, bad manners, and bad language, yet he gives it as the opinion of those who have the best opportunity of judging, that "using this bad language, which they do not understand, when young, renders them prone to adopt the acts of immorality on which they converse;" and of one school in particular it is stated that "two out of three of the scholars are girls whose conversation is more loose than that of boys" (Ibid. p. M 16 et seq., s. 111 et seq.).

The Young Persons employed in file-cutting are generally the Children of a superior class, and their moral condition, particularly during their apprenticeship, when they are in some measure under the superintendence and control of the principal, is said to be on a par with that of any other body of workmen. They are frequently required to go to Sunday-schools, and in one instance (at a foundry) the indenture of apprenticeship contains a clause to that effect, the operation of which, though in general not easily enforced, is stated "to be good to a considerable extent" (Ibid. p. M 33, s. 205).

hire. The nail-makers and their Children in Lancashire are stated by Mr. Kennedy to be swarthy and dirty in appearance, and to

be ill-educated, drunken, and profligate. Mr. Thomas Fisher ; Moore, of Wigan, whose evidence is confirmed by that of other witnesses, states that he has been in the iron and nail trade for ⁴ fifteen years, and has employed nailers very extensively: "Nailers are quite proverbial for dishonesty; they will cheat you in every possible way they can: colliers are said to be bad, but nothing can beat nailers for dishonesty. Sometimes they will exchange good iron which they have received for bad, and keep the difference. Sometimes they will make away with iron, and never give any account of it. Sometimes they will make it into nails, and dispose of it to carpenters and ironmongers on their own account. We are frequently obliged to issue out warrants for their apprehension on this score. There is a printed form of notice, which we keep by us; and I believe the same thing is done by every nail-master in the trade; its being printed will show you how frequently we are obliged to use it. They are drunken and profligate in the extreme; they are constantly making disturbances; cock-fighting and bear-baiting, are their amusements, especially in the neighbourhood of Chowbent; they get punished by the magistrates, but they continue it still. If they find out that you are making inquiries into their condition and moral character, I think it not at all unlikely that they will mob and stone you. They are quite uneducated; scarcely any of them can read, and very few can write their names; when they sign the receipt of iron they almost invariably make a mark instead of signing their names." The Sub-Commissioner adds:—"Mr. Kirk, in the employment of Messrs. Thomas Moore and Sons, gave similar testimony, and stated to me that the rising generation are equally as bad as the adults; scarcely any of them can read or write" (Report: App. Pt. I., p. B 40, s. 276; Evidence, p. b 45, ll. 44 et seq.).

At Sedgley and the neighbouring villages the number of girls employed in nail-making considerably exceeds that of the boys. Of these girls Mr. Horne reports:—"Their appearance, manners, habits, and moral nature (so far as the word *moral* can be applied to them) are in accordance with their half-civilized condition. Constantly associating with ignorant and depraved adults, and Young Persons of the opposite sex, they naturally fall into all their ways; and drink, smoke, swear, throw off all restraint in

Traders and Manufacturers. word and act, and become as bad as a man. The heat of the forge and the hardness of the work render few clothes needful in winter; and in summer, the six or seven individuals who are crowded into these little dens find the heat almost suffocating. *Actual Moral State.* The men and boys are usually naked, except a pair of trousers and an open shirt, though very often they have no shirt; and the women and girls have only a thin ragged petticoat, and an open shirt without sleeves. Amidst circumstances like these, it is but too evident that the efforts of the Sunday-schools can only be productive of a very limited good, chiefly confined to the Children of those parents who are of a religious turn of mind" (Report: App. Pt. II., p. Q 78, s. 767). *Sedgley.*

East of Scotland.

The moral and religious destitution of the poor Children employed in nail-making in the East of Scotland is exceeded only by the wretchedness of their physical condition. The Children and Young Persons employed in the iron-works in this district are said to be growing "more and more ignorant," and as a proof of this it is stated that "the workmen who are 25 years of age and upwards can almost all read and write, while many of the boys can do neither, and that they are not likely, after once beginning to work, ever to learn to read or write." Of the Young Persons employed in foundries it is stated that the "moulders" begin work at a much earlier age than the "smiths," and that the consequence is that the smiths are, as a class, intelligent, and read and write well, while the moulders scarcely read at all; few write, and all are self-willed (Franks, Report: App. Pt. II., p. K 7, s. 43; Evidence, p. k 29, l. 67).

Lancashire.

The Children employed in some of the processes of the manufacture of earthenware are neat and cleanly in their persons, and well-behaved in their conduct; but in others they are much neglected and very disorderly, and in the whole of this manufacture, with very few exceptions, the educational, moral, and religious culture of the Children is lamentably deficient (Scriven, Report: App. Pt. I., pp. C 3 et seq., ss. 11 et seq.)

Nottingham.

"In the town of Nottingham," says Mr. Grainger, "all parties, clergy, police, manufacturers, workpeople, and parents, agree that the present mode of employing Children and Young Persons as threaders and winders is a most fertile source of immorality. There can, in fact, be but few states more immediately

leading to vice and profligacy. Children of both sexes are called out of their parents' houses at all hours of the night, and, as it is quite uncertain how long they may be required, whether for two hours or the whole night, a ready and unanswerable excuse for staying out is furnished (No. 138). The threaders, who are usually boys, and the winders, who are generally girls, are required at the same time, and thus have every facility for forming improper connexions. The natural results of such a noxious system are but too apparent, and must have contributed in no slight degree to the immorality which, according to the opinion universally expressed, prevails to a most awful extent in Nottingham. In addition to the immediate evils to the Children themselves, the domestic peace and comfort of the families of which they are members are sacrificed to this most unnatural state of things" (Report: App. Pt. I., p. F 9, ss. 72, 73).

The moral condition of the lace-makers in Northamptonshire, Oxfordshire, Beds, and Bucks, is stated by Major Burns to be extremely low, and prostitution is rife among them, from their scanty earnings, their love of finery, and the almost total absence of early moral culture (Report: App. Pt. I., p. A 12, s. 104).

In the West of England, Dr. Stewart reports that he everywhere found a strong desire on the part of the heads of families "to turn their Children to account, and keep them as subordinate instruments of their own plans, which are often blind and low in the extreme;" that consequently the intellectual, moral, and religious culture of these children is grievously neglected; that they grow up to vegetate a poor and uneducated class, who have no ambition or thought beyond the enjoyment of their present means; and that under such circumstances there are strong temptations to a dissolute life (Report: App. Pt. I., p. D 7, ss. 31 et seq.).

Of many of the Children in the print-grounds of Lancashire, and especially of those who have been the least educated, it is stated that they appear to have no sense of moral obligation; they are generally not trustworthy, and are given to pilfering, lying, and fighting; while they are rude in their manners, have no respect for age, and in general show a great want of consideration for the feelings of others (Kennedy, App. Pt. I., pp. B 17 et seq., ss. 123 et seq.). Of the same class in Scotland it is stated that the ease with which parents are enabled to rid themselves of the

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tures. burthen of their Children's support weakens all parental and domestic ties, saps the foundations of morality, and stops all progress in the mental and moral culture of the Children (Tancred, val Moral
State. Report: App. Pt. II., p. I 21, s. 87).

Superior Value of Educated Workpeople.

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workpeople. While in all essential circumstances the account given of the educational and moral condition of the Children and Young Persons, employed in every other branch of industry into which investigation has been made, is similar to that which has now been presented, the most enlightened employers in almost all the districts, as well as the best informed among the managers of their works, concur in expressing an opinion that the extent of education which the persons engaged in their service have received in early childhood and youth is in general a just measure of their value as workmen, and that every day's observation and experience convinces them not only that their intelligence and their general condition, but also that the social, moral, and religious character and conduct of the working classes, as a body, will be raised above its present state exactly in the proportion in which their education is improved and extended. Of the testimony almost invariably given to this effect the following statements, among great numbers of others, may serve as examples:—

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tricts. Witnesses examined by Mr. Grainger say,—“Thinks that the Children and adults who are the best educated, and have their mental faculties most cultivated, are the most useful to their employers and the best conducted.” “Has always found that the educated and instructed workpeople, of whatever age or sex, are the better conducted and more valuable than the ignorant and illiterate. Every day's experience convinces him of the great importance of diffusing information among the labouring classes employed in manufactures.” “Finds from his daily experience that the educated and instructed mechanics are those who are most valuable as workmen. The ignorant and illiterate are generally very suspicious and jealous of any improvement which is to be introduced. Is of opinion that it would promote the interests of the employer if every mechanic, from the highest to the lowest, were well instructed.” “The better a man is educated the better workman he makes. I speak from the experience and observation of many years. Instruction and kind-

ness towards the working classes has an elevating tendency." "Has had constant opportunity of contrasting the conduct of the educated and well-informed with that of the ignorant and ill-informed. Finds that the educated workman is unquestionably of much greater value to his employer than the uneducated. Would not knowingly employ even one of the very lowest mechanics who could not read. Finds that exactly in proportion to the extent of a mechanic's information is he respectful in his behaviour, and generally well conducted; and, on the other hand, the ignorant are less respectful and not so well disposed towards their employers." "The educated and cultivated workpeople, of all ages, are decidedly the best; they are more valuable as mechanics, because they are more regular in their habits and more to be relied upon in their work. In the event of any alteration as to price, or other change in the manufactory, always finds that the educated class are most reasonable. Is so strongly convinced of the great importance of education, intellectual and religious, that witness has taken active means to promote it. Having lately taken a more immediate interest in increasing the attendance of his workmen's Children at Sunday-schools, has found as the result a decided improvement in the conduct of the boys employed here." "Has always found that the men who are educated are more reasonable and more respectful in their behaviour than the ignorant. It occasionally happens that, from the increasing competition, a reduction of wages is required. When this happens, witness calls his men together and explains the circumstances to them, and inquires if they are willing to submit to execute the order upon the terms offered: on these occasions has found that the educated class is most easily convinced of the real state of the case, and therefore willing to accede to what the market requires. The educated class are better conducted in their family relations than the uninformed." "Has had considerable experience in the conduct and character of mechanics. Finds that the educated and instructed men are more valuable to the employer. They are the best workmen, 'because they think more of what they are doing:' they are more regular and to be depended on, because, among other things, they do not indulge in low amusements and drinking. Recollects the case of a workman who imagined he had been unfairly treated with respect to wages: here if the man had been able to read and understood something

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of figures, he would immediately have perceived his mistake; as it was, no reasoning could convince him he was in error. Is of opinion that it would be beneficial to the manufacturing interest if all mechanics received a sound general and religious education."

"As regards the domestic habits of the educated class, they are more attentive to the well-being of their families; they invariably educate their Children, which he infers, among other means of observation, from the fact that the Children of such parents never swear or use bad language, comparatively speaking. Their houses are more cleanly. There is better economy; 'every thing, in short, is made the best of.' Men who are educated, and earn as much as 18s. or 1l. a-week, rarely allow their wives to be employed at manufactories; they stay at home to superintend their domestic affairs. As a general rule they abstain from intemperate habits, and they are enabled to bring up their families well. Has a great number of such mechanics, whose average wages would amount to 18s. Among the stampers earning that sum there is not one whose wife goes out to manufacturing labour. The educated class are attentive to their religious duties."

"The evidence from all classes of manufacturers," says Mr. Grainger, "abounds with the strongest expressions corroborative of the above opinions, and I am quite borne out in stating that there is an unanimity upon this question, which, as far as my experience extends, is as universal as it is important." (Report: App. Pt. I., p. F 38, ss. 363 et seq.; Evidence, Nos. 12, 22, 82, 94, 231, 273, 349, 350, 351, 363, 403, 423, 771, 772, 798, 850.)

Witnesses examined by Mr. Kennedy say:—"If I were to give you a list of our best workmen, you would find that in nine cases out of ten they would be the best educated. I can safely say that the best educated men make the best practical workmen, and they are the most sober and steady at their work." "Educated men are much better workmen generally, and much more easy to manage: the uneducated can be turned any way; one discontented fellow in a shop will make them all refractory." "I have often spoken to Scotchmen on the subject of the education of their Children, who as a nation are remarkable for the superiority of their education, and their remark has often been, 'We had rather they wanted meat than learning.'" "It is generally the case that uneducated parents care nothing about the education of their Children; they think they confer a favour on the school by send-

ing their Children, even when the schooling is given gratis. And we find it generally the case that where some attention has been paid to the Children the parents have been better educated than those about them of the same class." "We cannot trust much to the young ones who have not been educated; they are generally not trustworthy; are given to lying and fighting. They are not so obliging as those who are educated: they are indolent, and will take advantage of you when your back is turned." "I can tell at a glance Children who attend school from those who do not; they are much more quick and intelligent." "Generally the Children who have had some education are much more diligent at work, and a great deal more easily managed; they are more quick in doing what they are told, and make fewer mistakes." "Children who have had the benefit of education manifest it by being more attentive to orders, by receiving orders more readily, perceiving your intention more quickly, and being more prompt generally." "Those Children who have not been educated are addicted to lying and pilfering; they have no sense of moral obligation; they are sulky, morose, and indolent; and are not so trustworthy as those who have had some education." (Report: App. Pt. I., p. B 17, ss. 121 et seq.; Evidence, Nos. 37, 51, 52 et seq.).

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Witnesses examined by Mr. Franks say:—"The workmen who have been educated when Children are in my opinion more attentive to their domestic duties, more regular in their daily employments, more valuable as workmen for their general intelligence and skill, more reasonable in periods of public excitement or embarrassment, or in disputes with their masters, and more capable of comprehending the real cause of any difficulty or misunderstanding." "The best instructed are always the best workmen, and the easiest controlled" (Evidence: App. Pt. II., p. k 40, l. 46). "My best servants are those who have been best taught in their youth." "It is to our advantage to promote a love of reading, and we are happy to say that all in our establishment, young and old, and of both sexes, read. Our establishment of a library has been of service in promoting habits of sobriety and order. They take books home with them, and in the intervals of labour, when a few minutes of leisure occur, you may see many of the boys with a volume in their hands. We uniformly find that the more intelligent the workmen and women are, the better is their general

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behaviour" (Ibid. p. k 8, l. 63). "We very rarely give work to any boy who cannot write, because we have found that at least three out of every four boys who could not write at the time of their entering our work have never done any good, being either worthless workers or worthless characters, or both." (Also Nos. 83, 85, 143, 258, &c.)

Witnesses examined by Mr. H. H. Jones say:—"Education will never make men worse, but will surely improve their minds and dispositions. Of this I am certain from long experience" (Evidence, Mines: App. Pt. II., p. 415, l. 60). "A general system of education would have a tendency to improve the condition of the working classes; it would, in my opinion, do infinite good in this and every other place. I have always found those who have taken their education well are the best people, and I would prefer them as workmen" (Ibid. p. 455, l. 40). "I infinitely prefer those workmen who have had some education; they will listen to reason, and may be persuaded more easily than others. I sincerely wish a general system for the education of the working classes could be brought about; it would be better for the people themselves, and also for the country: of that I am sure" (Ibid. p. 460, ll. 41, 48). "All our best men are those who have had some education, and the most troublesome and most worthless are those who are quite ignorant" (Ibid. p. 447, l. 11). "Those persons who have had no education are far more difficult to deal with than those who have been taught. There is no such thing as reasoning with them: they curse the law and the makers of the law, and never listen to reason" (Ibid. p. 407, l. 60). "We have had turnouts several times amongst the workpeople: on these occasions I always found those who had some education were more reasonable than others who were quite ignorant: I could talk to them with more probability of convincing them, and of showing them their error; but it was useless to talk to, or to argue with, the ignorant. I find the ignorant at all times less easily convinced and less manageable" (Ibid. p. 405, l. 22). "The classes which most frequently appear before the justices are the totally ignorant, in the full proportion of two to one; and when a person who has been taught to read and write is brought up on a warrant or summons he is generally more reasonable, and more easily persuaded of his error" (Ibid. p. 403, l. 49). "The better educated conduct themselves better in times of difficulty and

danger, in sickness and sorrow. In every opportunity I have had of observing I always saw that the persons who could read bore up against difficulties better than others who could not, and would better console themselves and their families." "They attend more to their religious and moral duties; the ignorant are less inclined to do their duty both towards God and man."

Want of Industrial Training.

Similar is the evidence given in other districts by this class of witnesses, who at the same time express their conviction of the importance of establishing industrial schools for the Children of the working classes:—"I think it would be a great advantage to a Child to have the different branches of the trade which it is to pursue in after-life brought before it in infancy; for example, descriptions of the various processes of printing, dyeing, cutting blocks, compounding colours, for Children to be employed in print-works; and other trades in the same manner. I am certain it would be a great advantage to be thus trained; and at the same time it might be made to interest and relieve the tediousness of education. It would lead to the early discrimination of the particular bent of each Child's mind. This will appear more requisite as the division of labour is, more generally in use." Other witnesses state that descriptions, for example, of the cochineal insect, the growth of cotton, the process of making leather, the manufacture of iron, &c., might be made highly interesting and instructive even to young Children, and that those of older age might be taught something of the principles of mechanics and machinery, with the advantage of making them more fit for their trades in after-life.

Want of Instruction in Design.

Many of these witnesses urge the national importance of establishing schools of design in the chief seats of certain branches of manufacture, particularly with reference to some descriptions of ornamental work carried on in Birmingham, the manufacture of earthenware in the north of Staffordshire and in other places, the lace and hosiery business in Nottingham, and the print-works in Lancashire, Cheshire, and Derbyshire, and the West of Scotland. "The manufacturers of Birmingham and Nottingham," says

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Mr. Grainger, "are, as a body, impressed with the importance of having efficient schools of design established in those towns. At present none such exist." With regard to Birmingham, among other witnesses, Mr. Benjamin T. Marrian, in whose business, that of a die-sinker, a knowledge of animal, vegetable, and architectural forms is indispensable to excellence, says,—“A knowledge of design is particularly required in this town, in consequence of the numerous branches of trade in which ornament and decoration are involved. Does not think that the institutions of the town, as at present constituted, are by any means equal to give this knowledge. Thinks that the general taste of the workmen would undoubtedly be improved if schools of design, provided with all the required means of instruction, were established. The great defect at present in the teaching of drawing in this town is, that the drawing-masters do not understand the trades in which design is required. Witness has attended lectures which have been given on design, but could never obtain any knowledge which was applicable to his business, and has therefore had to seek in various quarters for the information required, at great expense and labour. Understands that in the French schools of design the pupils are attended and instructed by actual workmen, a plan which must be, of all others, the best. Is most decidedly of opinion that the trade of the town would be benefited if the children who attend such schools as those lately established by the governors of King Edward's foundation for instruction in English, &c., were taught drawing with reference to design. It would be necessary that those boys who were employed in the ornamental branches of trade should continue their studies in drawing after they had begun to work, as it is only then they would be competent actually to design for practical purposes. Witness was engaged nearly four years to teach drawing in reference to design at the Mechanics' Institution. When he first began to teach there were about fifty students, but under his care the number was raised nearly to two hundred. The boys who attended were of the ages of from eight or nine to fourteen or fifteen, and the great majority were at the time engaged in manufacturing labour, and were principally the sons of mechanics. The attendance was from seven till nine p.m. every Monday evening. Patterns were given to the pupils at the end of the lesson, which they copied as far as they

were able during the week. Found, with this limited instruction, that many of the boys made considerable progress. Think that the period of study might be greatly extended without interfering with the regular hours during which the work is carried on at the various manufactories of the town. The mechanics were very anxious that their sons should study drawing; indeed this class was much the largest in the institution. The expense for instruction in writing, drawing, and arithmetic, and attendance on lectures, was 3s. a quarter" (Grainger, Report: App. Pt. I., p. F 38, ss. 366 et seq.; Evidence, p. f 183, ll. 30 et seq.).

William Hawkes, Esq. :—"Is principal of the Eagle Foundry, Broad Street, and employs about seventy men and thirty boys: is of opinion that schools of design in the manufacturing towns would be most beneficial, by promoting and diffusing just ideas as to form, colour, &c., among those whose business is connected with such matters. Purchases the finer and ornamental designs and models from London and Sheffield, finding a difficulty in procuring them in Birmingham" (Ibid. p. f 184, ll. 7 et seq.).

Samuel H. Turner, Esq. :—"Is a partner in the firm of Turner and Sons, button manufacturers. Employs about five hundred persons in this establishment. They have also establishments at London, Manchester, Leek, and Paris. Has great experience of the general habits and characters of the persons employed in his manufactory. Knows all these workpeople personally. If a general system of education were adopted, is of opinion that it would be desirable there should be attached to it a school of design for the higher class of mechanics. Such an institution would not only prove beneficial as an amusement, and as improving their general knowledge, but also as leading to improvement in various branches of manufacture. In proof of which it may be stated that this establishment, not being able to obtain the finer designs required in the business in this country, are obliged to procure them from Paris" (Ibid. p. f 129, ll. 40 et seq.).

Thomas Tandy, fourteen years old :—"Has worked at Mr. Hawkes's iron-foundry four years. Attends every evening except Saturday at the school of the Mechanics' Institution. Draws from copies, not from casts or models. Has not drawn any flowers, but those boys who can draw well enough have copies of them.

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The copies for drawing are taken home, where witness practises. Has not seen at the class-room any drawings of the objects made in this manufactory, such as leaves, ornamental foliage, &c. It would assist him in his work at the manufactory, in making patterns, if he could study and copy the objects required at the drawing-school. This is a general feeling in the school. The drawing-class is much larger than others at the institution. Would like to draw twice a-week, 'because it would be of more use to him.' (Ibid. p. f 184, l. 41). Alfred Wood, fifteen years old:—"Is employed to paint coloured flowers on. teaboard, tables, &c. Thinks there are several hundred boys and men employed as draughtsmen in the town in the japanning trade. It would have been a great advantage to witness if there had been a school of design at which he could have studied ornamental drawing. Thinks such a school would benefit the trade generally" (Ibid. p. f 184, l. 60).

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Mr. Henson:—"Is a manufacturer of silk and cotton hosiery, comprising gloves, stockings, &c. An opinion has for some time prevailed in the trade that they suffer very much from a want of taste in various articles in great consumption. A very large number of mechanics are employed in the several branches of the fancy trade; and their interests suffer materially by the superior attraction of French goods, both in the home and foreign market. Merchants engaged in the American trade have often stated to witness that the French embroidered gloves are preferred to the English in the American market. If they could equal the French in the ornamental part they would secure a preference, because the English manufacture is superior. At present the manufacturers, when in London, select the best patterns from among the French articles, and then have them copied. Latterly more attention has been paid to procuring original designs. If there are any young men in the establishment who have a taste for drawing, they occasionally make designs for the embroidery. Is convinced that they will never be able to compete with the French until a school of design is established where the subject is expressly cultivated: this is an opinion very generally entertained among the manufacturers. They would be most willing to assist in promoting such an institution; but unless some aid were

afforded by the government, does not think, from the experience of the past, that the school could be efficiently and permanently carried on" (Ibid. p. f 107, l. 55).

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Mr. George Taylor, superintendent of Messrs. Wright and Co.'s lace manufactory :—"Is convinced that a principal cause of the present superiority of the French silk manufacture over that of this country is the want of schools of design; believes that this is a general opinion in the trade. An attempt was made about a year and a half ago at Nottingham to form such a school, which witness believes was unsuccessful. Is decidedly of opinion that it is desirable schools of design should be established in the large manufacturing towns, and their permanence insured by legislative enactments" (Ibid. p. f 4, l. 60).

The Rev. James Carroll, Merthyr, South Wales :—"Schools of design, and schools in which the elements of mechanics, and the other branches of natural philosophy, should be taught, would tend greatly to elevate the social condition and character of the working classes; perhaps more here than in most other places, on account of the high wages attainable here by proficient" (Franks, Evidence, Mines: App. Pt. II., p. 506, l. 40).

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The Rev. Henry Hey Knight, B.D., rector of the parish of Neath :—"As to the establishment of separate schools of design, &c., I think it would be better, and far more feasible, to have one class privileged to pursue these studies as a reward to peculiar aptitude, than to teach them in separate schools, and one mathematical master might attend once a-week or twice at a number of schools, so that the expense might be lessened" (Ibid., p. 567, l. 51).

XI.—EXERTIONS TO ADVANCE AND INDIFFERENCE RETARDING EDUCATION.

Advancement of Education by Individual Employers.

While all classes of witnesses, but particularly employers, give this decided and unanimous testimony to the importance of communicating to the Children and Young Persons employed in labour the elements of sound and useful knowledge, more especially in relation to their own trades and manufactures, with a view of increasing their skill and value as workmen, and of improving their general condition and character, some enlightened and

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benevolent individuals in all the districts take an active interest in the education of their workpeople, not only subscribing liberally to afford them the means of instruction, but by their own personal influence and superintendence, exerting themselves to induce them to profit thereby.

shire. In the Shropshire Coal-field, in an excellent school established, supported, and carefully superintended by the family of one of the partners and managers of the Coalbrook Dale Company, the Messrs. Darby, Dr. Mitchell states that the Children appeared exceedingly happy, and were found, on examination, to possess a very superior degree of knowledge. Both in the South Staffordshire and the Coalbrook Dale Coal-fields the very best feeling is stated to exist between the employers and the employed—proprietors, iron-masters, ground-bailiffs, charter-masters, and men in office of every rank, uniformly expressed kind and respectful sentiments towards the men; while the miners were civil and well-behaved, and indicate respect and regard for their employers (Report, Mines: App. Pt. I., p. 40, ss. 325 et seq.).

shire. In the Yorkshire Coal-field, the Messrs. Stansfeld and Briggs, at Flockton, have not only established Sunday-schools, in which great attention is paid to the religious and moral instruction and training of the Children, but they have formed singing classes, in which many of the Children and Young Persons of both sexes have attained great proficiency; an evening-school and an evening reading-room for Young Men and adults, provided with periodicals, &c.; a cottagers' horticultural society, with a view to encourage a taste for gardening, and a large and beautifully situated playground, fitted up with every apparatus for outdoor games and gymnastic exercises, and an adjoining field appropriated to cricket, &c. Many of the farm-labourers, says Mr. Symons, as well as the colliers, attend, and "as there are games and exercises adapted to both sexes and to each age, young men, lads, girls, and children are mingled together, and nothing is more hopeful than the perfect good temper and decorum which pervades the whole party; and many instances are exhibited of absence of selfishness which strongly corroborate the impression I have formed of the good-heartedness (in spite of the ignorance) of the collier population. The orderly and inoffensive deportment of the great body of those who attend this ground amounts almost to good breeding: nor is the kindly and grateful feeling

which exists on the part of the workpeople towards their employers by any means confined to the playground; it exists most warmly throughout the village, because the family themselves are the teachers, and in great measure the companions, of their workpeople" (Report, Mines: App. Pt. I., p. 201 et seq., ss. 259 et seq.). Some of the schools in this district are also spoken of by Mr. Symons in terms of high commendation (Ibid. ss. 246, 247, 255 et seq.).

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In the South Durham Coal-field, Mr. Edward Potter, coal-viewer and manager of the South Hetton Colliery, states "That the South Hetton Company have built a boys' school for 130 scholars, and a girls' school of the same size, and employ and pay a master and mistress; that the master keeps an evening-school for grown-up Boys and Young Men, and has about 30 scholars, who attend from a pure desire to acquire knowledge (Mitchell, Evidence, Mines, p. 149, l. 65.)

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It is stated by Mr. Daniel Liddell, a teacher of Newcastle, who appears to have paid much attention to the subject of schools in collieries, and to be well acquainted with the present state of education among the collier population of Northumberland, that the deficiency of education has long been matter of regret to many excellent persons, and that the coal-owners and their agents have long expressed a desire to promote the education of the pitmen's Children, but doubt whether any efforts on their part would be attended with good results until the men desire their aid. Several of the proprietors, however, have established schools, and provided funds for their support. Satisfied that the mental improvement of the pitmen, and the education of their Children, could be promoted to a great extent, even at their own expense, if the employers would countenance and assist their efforts, Mr. Liddell says:—

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"These views I have endeavoured to bring under the notice of the coal-owners, their agents, and the pitmen, at various times since 1835, by means of tracts and lectures on education. C. Blackett, Esq., M.P., expressed to me his desire to aid his men in the cause of education if they would form themselves into an educational society; their consent was obtained; the society was formed; a committee was appointed; Mr. Blackett provided school-rooms and a house for the teachers, with coals and a garden, and became an annual subscriber of 20*l.* to the funds of the

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school. Though always friendly to popular education, yet not one-sixth of the Children fit for school at Mr. Blackett's colliery had hitherto attended school; at this time the number of pupils increased from 30 to 160. The pitmen at Killingworth or Westmoor Colliery, having had their attention directed to this arrangement for education, expressed a desire for schools upon such a system. Mr. Nicholas Wood, the manager of the colliery, entered readily and cordially into their views, and the owners of the colliery readily agreed to provide schools, and to give the society their support. Three large schools were built, one of these an infant-school,—the first infant school that has been erected at a colliery in this district. Four hundred and six of the workmen immediately became subscribers of 3*d.* weekly to the schools. Before this there was only one school at the colliery, which was attended by about 90 pupils; but the number at the opening under this new arrangement was 528, and the schools are in a flourishing state. There was therefore an instantaneous increase of above 400 in the number of scholars, and these not drawn from other schools, but from Children passing their time idly at home. Lord Ravensworth, the Earl of Wharnccliffe, and J. Bowes, Esq., M.P., are the owners of Killingworth colliery, and they are well known as patrons of learning. Many of their workmen were born on the colliery; their pitmen seldom remove to another colliery; and Mr. Nicholas Wood, the manager, has not had occasion during the long period of his superintendence to require the aid of a soldier or constable, and yet only 90 of the Children belonging to such colliery attended school, while the schools are now attended by nearly 600 Children, without the slightest inconvenience to the manager of the colliery. It may, therefore, be safely assumed that the pupils at colliery-schools in this district might be increased in a sixfold proportion."

"These circumstances may lead to the conclusion that, if proper measures were adopted for imparting information to the colliery population of this district respecting their mental improvement and the education of their Children, they would become alive to the evils of ignorance and to the blessings of education, and would, under the auspices of their employers, form themselves into educational societies, so that all employed might increase their store of knowledge, acquire a scientific as well as practical acquaintance with their occupation, and secure to their Children

an extensive and useful education. The subscription being small, the arrangement would prove of great advantage to those with large families, and would be oppressive to none, while it would secure scientific information to persons employed at collieries which they could not otherwise obtain but at a great price and sacrifice of time. It does not appear that the owners of the collieries, or the friends of popular education, will adopt proper measures for promoting education at collieries without some legislative enactment. The establishment of improved schools at collieries ought to be followed by proper inspection, as the numerous engagements of the coal-owners and their agents leave them but little time to attend to the education of the pitmen's Children, and the pitmen require intelligent co-operation" (Leifchild, Evidence, Mines: App. Pt. I., p. 711, l. 38).

At Urpeth colliery there is a compulsory arrangement for education, thus noticed by Mr. Boyd, the agent:—"There is maintained here a self-supporting school, the master of which, appointed by the owners, has his salary almost entirely made up by the subscription of the workmen themselves, which subscription is made compulsory by being entered as part of the 'bond' or form of agreement entered into each year and signed by each workman and his family. This system was at first so extremely objectionable to the workmen, more particularly those without families, that I was obliged to discharge from his hiring one good workman on account of his great objections; and as to the probability of being able to continue it next year from the binding on April 5, though we have, from the goodness of the wages earned, &c., at the colliery, little observation on the payments, yet I have little hope of being able to get a sufficient number to do it, from the increased demand at collieries where no payment is made, and from the general feeling of opposition in a pitman to part with what he has wrought hard for. I have the same arrangement at Wylam Colliery, ten miles west of Newcastle, in the county of Northumberland, where I am agent for C. Blackett, Esq.; but as it is a much larger colliery, we afford there a very good salary, a middling master and mistress, two good school-rooms, and a house (dwelling) attached, all built and upheld at Mr. Blackett's expense; besides his subscription of 20*l.* per annum, which, with the master's salary, amounts to 70*l.* per annum; the under-agents and workmen are enabled to make use of it for a

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very good and now pretty extensive reading society" (Ibid. p. 716, l. 45).

In the East of Scotland, among others, his Grace the Duke of Buccleugh, the proprietor of the Dalkeith Collieries; J. B. W. Ramsay, Esq., proprietor of the Rosewell and Barleydean Collieries; R. Dundas, Esq., proprietor of the Arniston Colliery; Sir George Grant Suttie, Bart., of Preston Grange and Birsley Collieries; and John and William Wilson, Esqrs., the proprietors of Banknock Collieries, evince a great desire to improve the condition of their workmen (Franks, Report, Mines: App. Pt. I., p. 399, s. 81 et seq.).

At the Redding Collieries, the property of his Grace the Duke of Hamilton, "in order to encourage education a school-house has been built, a properly qualified teacher appointed, and the payment of school-fees is made compulsory on all the workmen, every male adult, married or single, contributing 4*d.* a fortnight, and the colliers are then free to send all their Children" (Ibid. Evidence, p. 477, l. 56). "These schools are connected with the Carron Company's coal and ironstone mines, supported partly by the company, and partly by small fees stopped at the countable every fortnight from each adult: the children attend well, as few parents like to pay for what they have no return" (Ibid. p. 480, l. 38).

William Wilson, Esq., says:—"In order to ameliorate the condition of my colliers I have lately built large well-finished cottages, with walled gardens; a large school; appointed a well-trained teacher, and guaranteed the fees of 60 pupils—giving a free house and free coals" (Ibid. p. 485, l. 21).

John Craich, Esq., managing partner of the Alloa Coal Company, employing from 1000 to 1100 workpeople, says:—"The late Earl of Mar took great interest in the condition of his colliers; and by giving education to the rising generation, improving the cottages, introducing rewards for gardening, and restraining the wives from working below-ground, he raised their character and habits to an extraordinary degree. He likewise introduced a system of self-government; and baillies were appointed, sanctioned by the lord-lieutenant, from amongst the colliers, to settle disputes as well as disputed payments, which has been of great advantage; and though the disputants have the power of appeal to the higher courts, there has scarcely been

any for years,—in truth not more than two or three since the appointment of baillies, which is upwards of 25 years. As the colliers have increased in knowledge they have also in wealth. The Provident Society of the Alloa Colliery at present has upwards of 1200*l.* in the bank" (Ibid. p. 489, l. 46).

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In the West of Scotland "the Duke of Portland's Collieries near Kilmarnock, under the able management of Mr. Guthrie, and likewise Mr. Baillie Finnie's in the same neighbourhood, are gratifying proofs of the success which attends well-directed efforts to improve the moral condition of such a population. Mr. Guthrie being very unwell at the time of my visit to that part of the country, I had not the advantage of taking his evidence, but this is in some measure supplied by the evidence of Mr. Muir (No. 32), who has adopted Mr. Guthrie's system in the management of the collieries of which he has charge. He states that most of the colliers are hired by the year, and that this practice has had a very beneficial effect. He is also careful not to let Children enter the pits very young, or before they have acquired some education. Mr. Guthrie's clerk also states (No. 33), 'Our people here on the Sabbath-day just go to church as regular as they go to the coal-work; Mr. Guthrie has got it so 'imbibed' in them; he sets them the example himself'" (Tancred, Report, Mines: App. Pt. I., p. 315, s. 20).

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In North Wales, in most of the localities of large works, it happens that the parish churches are not calculated to give accommodation to a fourth part of the parishioners, and are inconveniently situated as regards the new population which these works have given birth to: the same may be said of the situation of the glebe-houses; so that, whether the incumbent be curate or rector, it is next to impossible for him to be of much advantage to the new settlers. In some places efforts have been made to meet the emergency. At the Penrhyn Quarries, near Bangor, the proprietor some years ago built a chapel for the benefit of the quarrymen. The proprietors of the Anglesey Copper-mine rebuilt the parish church of Amlwch on a large scale; and Mrs. Oakeley has just built, in the parish of Festiniog, in Merionethshire, a handsome and commodious church, and endowed it liberally. It is situated in the midst of a considerable population, consisting entirely of persons working at or connected with large slate-quarries, who, from the distance of the parish church and

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the residence of the clergyman, previously felt no bond of union with the establishment (H. H. Jones, Report : App. Pt. II., pp. 374 et seq., ss. 75 et seq.).

In South Wales Sir Thomas Phillips, proprietor of the Court-y-Bella and Mammoo Collieries, Monmouthshire, is now building a large school-house, one apartment of which will hold 160 persons, and other rooms are fitting up for infant-schools (Franks, Evidence, Mines : App. Pt. II., p. 538, l. 53). L. Lewellyn, Esq., at Aberdulais, in the Vale of Neath, has recently erected a commodious school in the immediate vicinity of the works. Anthony Hill, Esq., of the Plymouth Works, and the proprietors of the Chain-Cable Works, in the Vale of Taff, propose shortly to erect schools (Ibid., Report, p. 488, s. 108). Among the Coal, Iron, and Copper Works visited by Mr. R. W. Jones, schools were found established and supported by Mrs. Hopkins, J. and C. Bailey, Esqrs., the Dowlais Coal and Iron Company, and J. H. Vivian, Esq., M.P. (R. W. Jones, Report, Mines : App. Pt. II., pp. 610 et seq., ss. 3 et seq.).

Cornish
District.

In the Cornish mines the experimental school opened by Sir Charles Lemon, and his munificent offer to found and endow it, afford a sufficient indication of the interest taken in the education of their workpeople by some of the large proprietors in this district (Barham, Report, Mines : App. Pt. I., p. 811, s. 286).

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In the lead-mines of the Northern Counties and of Scotland excellent schools are established and carefully superintended, in the former more especially, by the agents of the London Lead Company, and by Mr. Beaumont, for the large numbers of Children and Young Persons employed by him ; and the people engaged in the lead-mines of Scotland have, as has been already stated, long been pre-eminent for their moral worth, as well as for their acquired intelligence (Mitchell, Report, Mines : App. Pt. II., p. 752, ss. 283 et seq. Fletcher, Report, Mines : App. Pt. II., pp. 863 et seq., s. 18).

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In every branch of trade and manufacture in all the districts there are benevolent individuals who endeavour to promote the moral improvement and the general welfare of the Young People employed by them. "Some employers," says Mr. Horne, "take an interest in the education of the Children and Young Persons, more especially among the Catholics. A few of the employers may be said to take a deep interest in it. I may mention two of

the magistrates—Mr. Henry Hill and Mr. John Baker : the one a banker, and in the iron-trade; the other a large iron master” (Report, p. Q 20, s. 231).

Mr. Edelstone is stated to take “much pains” at the Sunday-school with the Children in his employment; and Mr. Fawcett, the proprietor of a large iron-foundry, says that “he is desirous of having his people leave off work an hour before their usual time on certain nights, in order to procure their attendance at the Mechanics’ Institute” (Austin, Report, p. M 16, s. 110; p. M 65, s. 348).

In the West of England Mr. Waring states that he found one school in immediate connexion with a manufactory, namely, Mr. Clarendon’s school, where “boys receive a useful education, and girls, in addition to reading, writing, and the elements of grammar, are taught sewing: an advanced class of the boys receive lessons in geography and simple mathematics. Mr. Clarendon has built a commodious house for the master and mistress, and manifests a generous benevolence in the whole arrangements, highly worthy of imitation” (Report, p. O 5, s. 61).

Dr. Barham states “that much attention has been paid by the proprietors of the iron-foundries in Cornwall to the provision of the means of instruction for the Children of their workmen; and day and evening schools, superior to those accessible in most other parts of Cornwall, have been opened, chiefly at the charge of these gentlemen, at a scale of payment within the means of the parties for whose benefit they were designed. None of these schools are, strictly speaking, in connexion with the foundries, though they draw their chief support from the proprietors, and the majority of their scholars from the families of the workmen” (Barham, Report, p. S 6, s. 256).

Mr. Scriven states “that the employers in the Potteries, as a body, spare no efforts to afford the younger portion of their workpeople ample opportunities of acquiring moral and religious education, which he found here more abundant than in any other district examined by him” (Report, App. Pt. I., p. C 8, s. 28).

Mr. Franks states that he met with some very gratifying instances in Edinburgh of the attention paid by employers to the welfare of the younger part of their workpeople, and of its complete success in the improvement of their character and conduct. This

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was particularly exemplified in the attention paid to the Tobacco Boys' School, and in the system practised by the Messrs. Chambers, the well-known publishers, in reference to the Children employed in their establishment. "From the utter poverty and negligence of parents," says Mr. William Chambers, "that dreadful deterioration of condition in which the bulk of the poor in Edinburgh are unfortunately placed, the boys and girls that come to us for employment at the utmost can barely read; few can write. To remedy this sad defect we engage a schoolmaster to attend every afternoon for an hour; and by this person the boys are instructed in reading, writing, and arithmetic. We furnish books, paper, slates, &c., so that these children receive an elementary education, so far as it goes, gratis. At present we are organizing means for causing all the boys to wash themselves night and morning, and for otherwise improving their physical condition. Once every year we collect all the persons in our employment, young and old, and give them an entertainment on temperance principles. To this annual *soirée* the wives of the workmen are invited, also a number of guests belonging to the higher classes of society. The meeting is enlivened by music, and speeches from different individuals, and, upon the whole, it affords a highly entertaining treat to all who are present. By the careful selection of individuals for employment, the exactness of our rules, and the means taken to promote the general comfort, there never occurs any disaffection or bad conduct requiring a check. In no instance have we found any delinquency among the individuals we employ—we never have had to complain to a court of justice of any impropriety whatsoever" (Evidence, App. Pt. II., p. k 9; l. 4).

London.

An extensive employer of Young Persons in the business of book-binding in London describes the exertions of his senior partner in the following terms:—"Mr. Westley, senior, has for forty years devoted great attention to the moral and religious behaviour of those employed, and the happiest effects have resulted. Is convinced that, by conscientious and vigilant superintendence on the part of the principals of large establishments, the moral and good conduct of the workpeople can be secured. In this house; where such scrupulous attention is paid, the mechanics do not object to the regulations; on the contrary, whenever a vacancy occurs, it is sought after eagerly. An establishment

well conducted, although of the magnitude of this, where there are on the whole from 250 to 300 hands, ought to resemble a well-ordered family. Considers that, where so many persons are placed under the personal control of the principals, it is an imperative duty on their part scrupulously to promote the moral conduct of their dependents. Such consideration is amply repaid to the principal by the zeal and cheerfulness with which the workpeople discharge their duties. As an instance, witness might state that lately, when, from particular circumstances, it became necessary to reduce the wages of one part of the establishment, the reduction was acceded to without hesitation; the parties interested feeling perfect confidence in the justice of the principal. Considers education of immense importance in an establishment of this kind. Attributes in part the good conduct of their workpeople to the circumstance of their being instructed" (Ibid., p. f 244, l. 9).

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London.

Indifference to Education on the part of Employers.

But these instances of personal attention on the part of employers to the welfare of their workpeople in general, and of the younger portion of them in particular, can be regarded only as individual exceptions. Of the great body of employers Mr. Symons says:—"It is a fearful thing to see how exempt the employers of labour hold themselves from moral obligations of every description towards those from whose industry their own fortunes spring. Even they who contribute at all to the education or moral improvement of their workmen do so in nineteen cases out of twenty merely by money, and without personal pains or superintendence of their own. These vicarious benevolences are seldom availing" (Report, Mines: App. Pt. I., p. 201, s. 258). "Large proprietors and masters," state some of the witnesses, "do not appear to take sufficient interest in the education of the people; even where there is a desire of education visible, it frequently is suffered to waste itself for want of proper direction." "Masters take no pains with the moral training of the Children." "It is pitiable to observe what little pains are taken by masters with the morals of the Children, and to observe what numbers of young creatures are almost totally neglected."

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Yorkshire.

In the South Durham coal district, within the last ten or twelve years, an entirely new population has been produced in places in

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which formerly there was not even the hut of a shepherd. "New towns," says Dr. Mitchell, "having sprung up as if by enchantment, containing sometimes 1000, at other times 2000, and even 5000 inhabitants,—all this has been done without any permanent endowment for religious and civil instruction" (Report, Mines: App. Pt. I., p. 143, s. 216).

Of the similar neglect of the moral and religious state of persons collected together in great numbers in new localities in the West of Scotland, Mr. Tancred says:—"This vast and sudden accession of population, consisting for the most part of irregular and dissolute characters from all parts—from Wales, England, Scotland, and Ireland—has produced a state of society, upon the existence of which, in a civilized country, we cannot reflect without a deep feeling that it manifests something essentially defective in our religious and educational institutions. At Coatbridge, where a large portion of this population has been located within the last ten years, no church or clergyman has been supplied them till very recently, when a church was erected, chiefly at the expense of one out of the numerous employers of labour in the district. There is also a relief church, provided also by voluntary contributions. In the meanwhile a population has been growing up immersed more deeply than any I have met with in the most disgusting habits of debauchery. I feel that my powers of description are wholly inadequate to convey the feeling inspired by a visit to these localities" (Report, Mines: App. Pt. I., p. 313, s. 12). In further illustration of this object Mr. Tancred adds:—

"Two iron-works, the Dundyvan and the Monkland, where malleable iron is made, have drawn a great number of their men, amounting with their families to about 1000 persons between the two works, from Wales, Staffordshire, and other parts of England. These people, taken from their native places and planted in a country of strangers away from their relations, their religious teachers, and all the restraints social and moral by which men are influenced, and receiving very high wages, have, as I understood, distinguished themselves even in that country by their excesses and irregular conduct. They are provided with a superior class of houses, erected expressly for them, consisting of two stories, and with about twice the accommodation required for the Scotch; they form a society amongst themselves, not mingling with the natives, and expend their high wages in good cheer of every

kind, occasionally entertaining each other with wine, turkeys, and other sorts of poultry. Whilst at work I understood that they have always beside them a large jug of beer and gin, of which they take copious draughts to replenish the abundant perspiration caused by the excessive heat of the puddling-furnaces at which they work. Every indulgence is provided for them; but their religious and moral condition is left to be cared for by chance Methodist teachers, or other inadequate means. The above may be considered a singular instance, but it is nevertheless a real instance of the social evils which large capitalists may and do create under the present absence of obligation to provide adequate religious and moral instruction to the population collected together by them. I attribute no particular blame to the proprietors of these works; on the contrary, one of them, the Monkland Iron Company, has shown an anxiety for the schooling of the Children in their works. I complain, then, not of individuals, but of the licence which our institutions afford to inflict any amount of corruption upon workpeople, and to expose society to danger by a postponement of every care of the moral condition of the employed to the one object of money-making" (*Ibid.* p. 346, s. 102).

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In regard to trades and manufactures, "the great majority even of the large employers," says Mr. Horne, "take a very languid interest in the education of the Children and Young Persons, hardly worth naming" (Report: App. Pt. II., p. Q 20, s. 231).

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"One fertile source of immorality," says Mr. Grainger, "is Birmingham the indifference but too generally evinced by employers as regards the moral conduct of their workpeople. Some, so long as the work is properly performed, are totally unconcerned as to moral misconduct. The greater number, however, professed their anxiety to check improper language and behaviour; and, with this view, regulations, fines, &c., have been instituted, but these in reality are often not enforced, remaining a dead letter. Those who are acquainted with the interior economy of large manufactories where numbers of all ages and both sexes are employed, must be aware that mere verbal or even written directions are of little avail, unless they are practically carried into operation by the vigilant and personal superintendence of the principals, or of zealous and conscientious agents. But where such a surveillance has been exercised, and fortunately this is not a rare occurrence,

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the happiest results have been obtained. Nothing can be more striking than the contrast between a factory thus managed and one of the opposite class. In one the visitor observes a general air of regularity and propriety; the workpeople decent in their dress, respectful in their behaviour, and orderly in their conduct. In the other levity and irregularity prevail; and it would rarely happen in walking through the workshops that some coarse and revolting expressions would not be heard, or some violation of decency would not be witnessed" (Report: App. Pt. I., p. F 39, s. 380).

d. "Manufacturers," says Mr. Symons, "are not the employers of Children in Sheffield, and there is no school attached to any of their establishments."

ire. According to Mr. Kennedy, extremely few of the proprietors of print-works in England take any interest in the education of the Children in their employment; and Mr. Tancred says of those in Scotland, "I am aware of only one print-field, that of Messrs. Daglish and Falconer, at Campsie, where any school is connected with the works" (Report, App. Pt. II., p. I 21, s. 81).

Indifference of Parents to their Children's Education in the Mining Districts.

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While the employers as a body are thus regardless of the educational and moral condition of the young workers, there is a perfect unanimity among all classes of witnesses as to the equal indifference of the parents, whether belonging to the mining or the manufacturing population.

hire. Many employers in the coal district examined by Dr. Mitchell state that they are constantly beset by parents entreating them to employ their Children before they are fit for labour, and often even insisting on it as a condition of engaging to work themselves (Report. Mines: App. Pt. I., pp. 124 et seq., ss. 50 et seq.).

hire. Mr. Fellows states that the sole wish of the parents examined by him seemed in general to be "to make all they could of their Children at as early an age as possible without regarding their future welfare;" and that "he has not only heard of, but has witnessed, the anxiety of father and mother that their coming off-spring may be a boy; both uniting in lamenting their fate should it happen to be a girl," because in that case they could not send it so early to labour (Report: App. Pt. II., p. 258, s. 88).

Witnesses examined by Mr. Austin, in Lancashire, state that parents will not avail themselves of the means afforded in that district for the education of their Children; that they will not send them to school, but put them at very early ages to work; and that they are apprehensive of any alteration which should have a tendency to deprive them of the profits of their Children's labour (Evidence: App. Pt. II., nos. 13, 31 et seq.).

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Lancashire

A clergyman, examined by Mr. Fletcher at Oldham, states that the earnings of the population in that neighbourhood, in prosperous times, are amply sufficient to enable parents to pay for the instruction of their Children, but that even in those times they will themselves support "nothing but an infant-school for week-day instruction. Sunday-school instruction they will take, because it does not interfere with work, nor does it cost anything; but when the Children come to about seven years of age they are too useful to be allowed to come to school during the week; and many even go out to nurse or hire so young as five" (Evidence, Mines: App. Pt. II., p. 859, l. 40).

Oldham

In Scotland all classes of witnesses state that the difficulty is to get the parents to send their Children.

Scotland

The same indifference prevails in Wales. "This apathy," says Mr. R. W. Jones, "results in many cases from the selfishness and dissipated habits of the parents, and in others from their ignorance of the benefits of education; having never received any themselves, they cannot appreciate its advantages to their Children, and estimate even 1*d.* per week as more than it is worth (Report, Mines: App. Pt. II., p. 586, s. 40). "Even," says Mr. Franks, "where a laudable desire is evinced by proprietors and others to extend more generally the benefits of education, the schools are but indifferently attended by the collier Children; and many of the witnesses state that it would be useless to establish free-schools, because the people would not think it worth while to send their Children" (Report, Mines: App. Pt. II. p. 487, s. 94 et seq.).

Wales.

Exceptions to the Indifference of Parents in the Mining Districts.

To this general apathy in the mining districts there are, however, exceptions, some parents fully appreciating the value of education,

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and making considerable sacrifices to afford it to their Children; and these exceptions are far more frequent among miners than colliers. "It is but justice to state," says Dr. Barham, "that a great number of the working miners, who are fathers of families, are most strongly impressed with the importance of the benefits conferred by a good education; contemplating higher benefits than the mere advancement of their Children in the world; and that they look forward with very great satisfaction to what they have anticipated as one result of the inquiries which have been made—the establishment of good schools which might be attended by their Children without preventing their gaining a livelihood at the same time" (Report, Mines : App. Pt. I., p. 806, s. 256).

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In the Lead Mines in the North of England, great care is taken of the early education of the youthful population, the parents almost universally sending their Children to school; "and their moral and intellectual condition," says Dr. Mitchell, "is greatly in advance of that of any working-class in any place in England with which I am acquainted" (Report, Mines : App. Pt. II., p. 754, s. 297). The same superiority is also maintained in the lead-mining district of Scotland, where the parents show an universal anxiety as to the education of their Children (Fletcher, Report, Mines : App. Pt. II., p. 865).

Scotland.

Indifference of Parents to their Children's Education in the Manufacturing Districts.

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Of the parents employed in the trades and manufactures examined by Mr. Grainger, he says:—"Many of them are utterly indifferent to the moral and physical welfare of their offspring. It would be a serious error to mistake this indifference for desperation arising from distress and misery. In the best of times, when, in Birmingham, for example, many mechanics were earning each from 2*l.* to 5*l.* or 6*l.* per week, instead of making a provision for the future, and promoting the welfare of their families, these large wages were but too often wasted in vice and extravagance" (Report : App. Pt. I., p. F 39, s. 370).

Wolver-
hampton, &c.

"Many of the parents," says Mr. Horne, "take an interest in the education of their Children at day-schools, until the Child is

old enough to earn a shilling or two a week, and then the interest is transferred to the eatable profit, and the conscience is made perfectly easy by sending the Child to a Sunday-school" (Report : App. Pt. II., p. Q 20, s. 232).

"One of the chief points for observation, in respect to the children," says Mr. Kennedy, "is the carelessness of the parents as to the future welfare of their offspring, as shown by their depriving them of the advantages of education : this they invariably do without reference to their ample means of supporting them ; all the advantages of the future are sacrificed to immediate gain or the gratification obtained by the additional pittance derived from the Children's earnings" (Report : App. Pt. I., p. B 50, s. 347).

"The complaints of those who interest themselves in education," says Mr. Symons, "are universal of the unwillingness of the parents to send their Children to school, their irregularity in sending, and their general withdrawal of them to be put to work just when they are beginning to reap some benefit from instruction. The parents do not attempt to conceal the ignorance or neglect of religious instruction on the part of their Children. The usual pretext is poverty. On the contrary, the evidence of the witnesses Nos. 32 and 106, that when trade improves fewer will remain in school, is, I believe, incontestable. Sensual gratifications are far oftener the obstruction to education than poverty, where schooling is so cheap as in Sheffield, even when trade is bad" (Report : App. Pt. I., p. E 30, ss 248 et seq. ; Evidence, Nos. 9, 15, 22, 32, 49, 106 et seq.).

Thus it appears that, from the indifference of employers, and the equal indifference of parents, to the intellectual, moral, and religious instruction and training of the Children and Young Persons employed in labour, their education is almost universally neglected ; and that there is at present in existence no agency which appears capable of effecting any material and general improvement in the condition of this large and important portion of the youthful population.

es and : XII. — CONCLUSIONS RESPECTING THE MORAL CONDITION OF
manufactures. CHILDREN AND YOUNG PERSONS EMPLOYED IN MINES
— and in collieries. AND COLLIERIES AND IN TRADES AND MANUFACTURES.
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From the whole of the evidence collected under the present Commission relative to the MORAL CONDITION of the Children and Young Persons included within its terms, whether employed

In COLLIERIES and MINES or in TRADES and MANUFACTURES, we find, state the Commissioners,—

1. That there are few classes of these Children and Young Persons "working together in numbers," of whom a large portion are not in a lamentably low moral condition.
2. That this low moral condition is evinced by a general ignorance of moral duties and sanctions, and by an absence of moral and religious restraint, shown among some classes chiefly by coarseness of manners, and the use of profane and indecent language; but in other classes by the practice of gross immorality, which is prevalent to a great extent, in both sexes, at very early ages.
3. That this absence of restraint is the result of a general want of moral and religious training, comparatively few of these classes having the advantage of moral and religious parents to instruct and guide them; their low moral condition, on the contrary, often having its very origin in the degradation of the parents, who, themselves brought up without virtuous habits, can set no good example to their Children, nor have any beneficial control over their conduct.
4. That the parents, urged by poverty or improvidence, generally seek employment for the Children as soon as they can earn the lowest amount of wages; paying but

little regard to the probable injury of their Children's health by early labour, and still less regard to the certain injury of their minds by early removal from school, or even by the total neglect of their education; seldom, when questioned, expressing any desire for the regulation of the hours of work, with a view to the protection and welfare of their Children, but constantly expressing the greatest apprehension lest any legislative restriction should deprive them of the profits of their Children's labour; the natural parental instinct to provide, during childhood, for the Child's subsistence, being, in great numbers of instances, wholly extinguished, and the order of nature even reversed—the Children supporting, instead of being supported by, their parents.

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5. That the girls are prevented, by their early removal from home and from the day-schools, to be employed in labour, from learning needlework, and from acquiring those habits of cleanliness, neatness, and order, without which they cannot, when they grow up to womanhood, and have the charge of families of their own, economise their husband's earnings, or give to their homes any degree of comfort; and this general want of the qualifications of a housewife in the women of this class is stated by clergymen, teachers, medical men, employers, and other witnesses, to be one great and universally-prevailing cause of distress and crime among the working classes.
6. That among the great body of employers it is very uncommon, even for those who are considered the best masters, to do anything more, in the moral care of their young workpeople, than merely to suspend in the places of work printed regulations, defining the duties and behaviour of the Children, and prohibiting the adult workmen from beating and otherwise ill-using them, without, either by themselves or their agents, taking any personal care that these regulations are observed: while, in the great majority of instances, even this is not done, but the Young People come to their work at

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a fixed hour; during the hours of labour they work constantly; when their task is done, they leave their place of work; and then all connexion ends between the employers and the employed.

7. That in some instances boys and girls and young men and young women pursue their occupations in separate apartments, and have no intercourse with each other while at their work; but this is extremely rare; the Children and Young Persons generally, of both sexes, not only working together in the same room, but being often in closer proximity to each other than they are in the factories of cotton, wool, silk, and flax; and all classes of witnesses concur in attributing to this circumstance a highly demoralizing influence.
8. That, in the majority of instances, the young people, while in their places of work, are under the care and control solely of the adult workmen, by whom they are generally hired and paid, and whose servants they are; and after their work is over they are subjected to no kind of superintendence, but their time is entirely at their own disposal.
9. That, although placed under such highly unfavourable and dangerous circumstances, some of these Children and Young Persons escape any permanent moral deterioration, and become in after-life as respectable and well conducted as any persons in their station; but this is not the common result: the more natural consequences of the possession of unrestrained liberty at an age when few are capable of self-government being witnessed in great numbers of these Children and Young Persons, who acquire in childhood and youth habits which utterly destroy their future health, usefulness, and happiness.
10. That the evils resulting from vicious courses, commenced thus early, and often pursued to the end of life, do not always stop with the ruin of the individuals, their example being sometimes contagious; and instances are recorded in which youths have leagued together for the

commission of crimes and outrages of no ordinary description.

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11. That to the still more perilous ignorance and credulity of the adults, into whose likeness the present generation must grow, if no means are devised for their moral improvement, many witnesses, and particularly employers and managers of works, attribute the outbreaks which have taken place in different districts in recent times, and express their conviction that in this ignorance and credulity is to be found the true power of agitators, the real cause which enables the excitors of disturbance to lead and delude so great a number of the people.
12. That the means of secular and religious instruction, on the efficiency of which depends the counteraction of all these evil tendencies, are so grievously defective, that, in all the districts, great numbers of Children and Young Persons are growing up without any religious, moral, or intellectual training; nothing being done to form them to habits of order, sobriety, honesty, and forethought, or even to restrain them from vice and crime.
13. That neither in the new Colliery and Mining towns which have suddenly collected together large bodies of the people in new localities, nor in the towns which have suddenly sprung up under the successful pursuit of some new branch of Trade and Manufacture, is any provision made for Education by the establishment of Schools with properly qualified teachers, nor for affording the means of moral and religious instruction and training, nor for supplying the spiritual wants of the people; nor in general is there any provision whatever for the extension of educational and religious institutions corresponding with the extension of the population.
14. That there is not a single district in which the means of instruction are adequate to the wants of the people, while in some districts the deficiency is so great that clergymen, and other witnesses, state that the schools actually in existence are insufficient for the education of one-third of the population.

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15. That, were schools ever so abundant and excellent, they would be wholly beyond the reach of a large portion of the Children employed in labour, on account of the early ages at which they are put to work.
16. That great numbers of Children and Young Persons attend no day-school before they commence work; that even those who do go for a brief period to a day-school are very commonly removed to be put to labour at five, six, seven, and eight years old; and that the instances are extremely rare in which they attend an evening-school after regular employment has once begun.
17. That such is the neglect of the education of the Children and Young Persons employed in Trades and Manufactures, that in some districts, out of the whole number of Children employed in labour, scarcely more than one-half are receiving instruction either in day or Sunday Schools; in others, two-thirds, when examined, were found unable to read; and in one, the great majority are receiving no instruction at all.
18. That, in all the districts, many Children and Young Persons, whether employed in the mines of coal and iron, or in trades and manufactures, never go to any school, and some never have been at any school.
19. That in general the Children who never go to any School seldom go to any place of worship.
20. That in regard, particularly, to the Children and Young Persons employed in the Mines of coal and iron, the fatigue produced by their labour is in general so great, that they cannot, with any advantage, attend School after the work of the day is over; that in several instances in England in which the experiment has been tried, and pains have been taken to provide evening-schools, the attendance of the collier and mining Children could not be obtained; and that, in the educational returns received from Scotland, while it is stated that it is common for Children and Young Persons employed in various branches of Trade and Manufacture through the day to attend the evening-schools, it is usually added that no Children of colliers and miners attend these schools.

21. That even in the day-schools which do exist, and which are provided with funds adequate to their support, the teachers, with some striking exceptions, are wholly unqualified for their office, having in general themselves been too short a time under instruction and training to have acquired much knowledge, or to have become acquainted with any regular system or method of teaching.
22. That in almost all instances the sole dependence for the education and the moral and religious training of the Children and Young Persons, after they have begun to work, is on the Sunday-schools; the teachers volunteering their meritorious efforts, which, however, are altogether unsystematic and feeble.
23. That in all the districts, great numbers of those Children who had been in regular attendance on Sunday-schools for a period of from five to nine years, were found, on examination, to be incapable of reading an easy book, or of spelling the commonest word; and they were not only altogether ignorant of Christian principles, doctrines, and precepts, but they knew nothing whatever of any of the events of Scripture history, nor anything even of the names most commonly occurring in the Scriptures.
24. That in all the districts many Children who had been returned as able to read, when examined, were found to know only the letters of the alphabet, a very small proportion indeed being able to read well an easy book; and in Scotland, of those returned as able to write, not one-fifth part could write their own names legibly, and scarcely one in fifty well enough to be able to apply the acquisition to a useful purpose.
25. That of those who could read fluently, very few, when questioned, were found to have any conception of the meaning of the words they uttered, or were able to give any intelligible account of what seemed to the examiners to be simple and easy terms and things; so that, as far as regards the acquisition of any useful

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knowledge, or the accomplishment of any higher purpose to be answered by education, these Children, in great numbers of instances, were as little benefited, after years of so-called tuition, as if they had never been at any school.

26. That, though some few of the Children attending the best schools were found, when examined, to have acquired sufficient elementary education to afford ground to hope that it would become so matured as to be of real use to them in after-life, yet the greater number in all the districts were in a state of total ignorance on all subjects secular and religious.
27. That the Children employed in the mines of tin, copper, lead, and zinc, being taken to underground labour at a much later age than is usual in the mines of coal and iron, or in trades and manufactures, a large majority attend day schools for a longer or shorter period, commonly during some years, before they commence work; and even after they have begun to work, the early labour being less severe in these mines than in those of coal and iron, considerable numbers of the Young Persons attend evening-schools.
28. That though, even in these districts, the means provided for the intellectual, moral, and religious training and instruction of the Children are everywhere inadequate, yet they are superior to such as are provided in the colliery districts; the number of Children and Young Persons in the former who receive elementary instruction greatly exceeds the number in the latter; and this is universally accompanied by a corresponding superiority in the intelligence of the Young People, and by an equal superiority in their moral and religious character and conduct.
29. That, whatever may be the state of ignorance and demoralization of the classes included in this inquiry, the instances in which efforts have been perseveringly made to improve their condition have generally been attended with success; as is shown, among others, in some of

the mining districts, more especially in the West of England and North Wales, where, under the zealous and devoted care of the Wesleyan and other ministers, men, who were formerly almost lawless, who spent their leisure hours in noise and riot, who delighted in all sorts of cruel sports, who were the terror of the surrounding neighbourhoods, and who, for gross ignorance, rudeness, and irreligion, were almost without a parallel in any Christian country, are now so far reformed, that there is as much decorum in their manners as is witnessed in the generality of the rural districts.

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30. That all classes of witnesses, but more especially employers and their agents, universally state that the best educated men are the most valuable workmen, the most regular in their habits, the most trustworthy, the most useful when any press of business arises, and in general the most prompt to understand and execute the directions given them; that this class of workmen often take a pride in doing their work in an excellent manner, and in preventing any waste of the materials; that they show a more intelligent readiness to adopt any new kind of work, or mode of working, which the employer may wish to introduce as an experiment, or which he is satisfied is an improvement, while the ignorant and prejudiced workman constantly avails himself of every opportunity and means in his power to prevent the success of the experiment, or to obstruct the introduction of the improvement; that they are more accessible to reason in the event of any discussion or dispute concerning wages or any other matter; that they often exert a highly beneficial influence over their less instructed and less intelligent fellow-workmen; and that they are invariably more respectful in their behaviour, less suspicious, and in all respects better disposed towards their superiors.
31. That in almost all the districts much anxiety is expressed by the best-informed witnesses, that any legislative enactment, to shorten the present hours of work for Children, should be accompanied by full and efficient means of educating the great numbers who would thus have time afforded them to attend school.

inquiry, before the consideration of remedies could be entertained with any prospect of advantage. This information we have now collected; and the picture which, in the faithful performance of this duty, we have been obliged to present of the physical and moral condition of a large portion of the working classes appears to us to require the serious consideration of Your Majesty's Government and of the Legislature.

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All which we humbly certify to Your Majesty.

THOMAS TOOKE. (L.S.)

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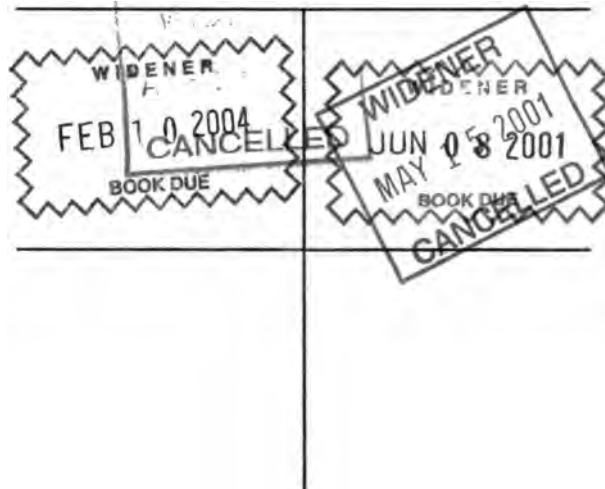
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